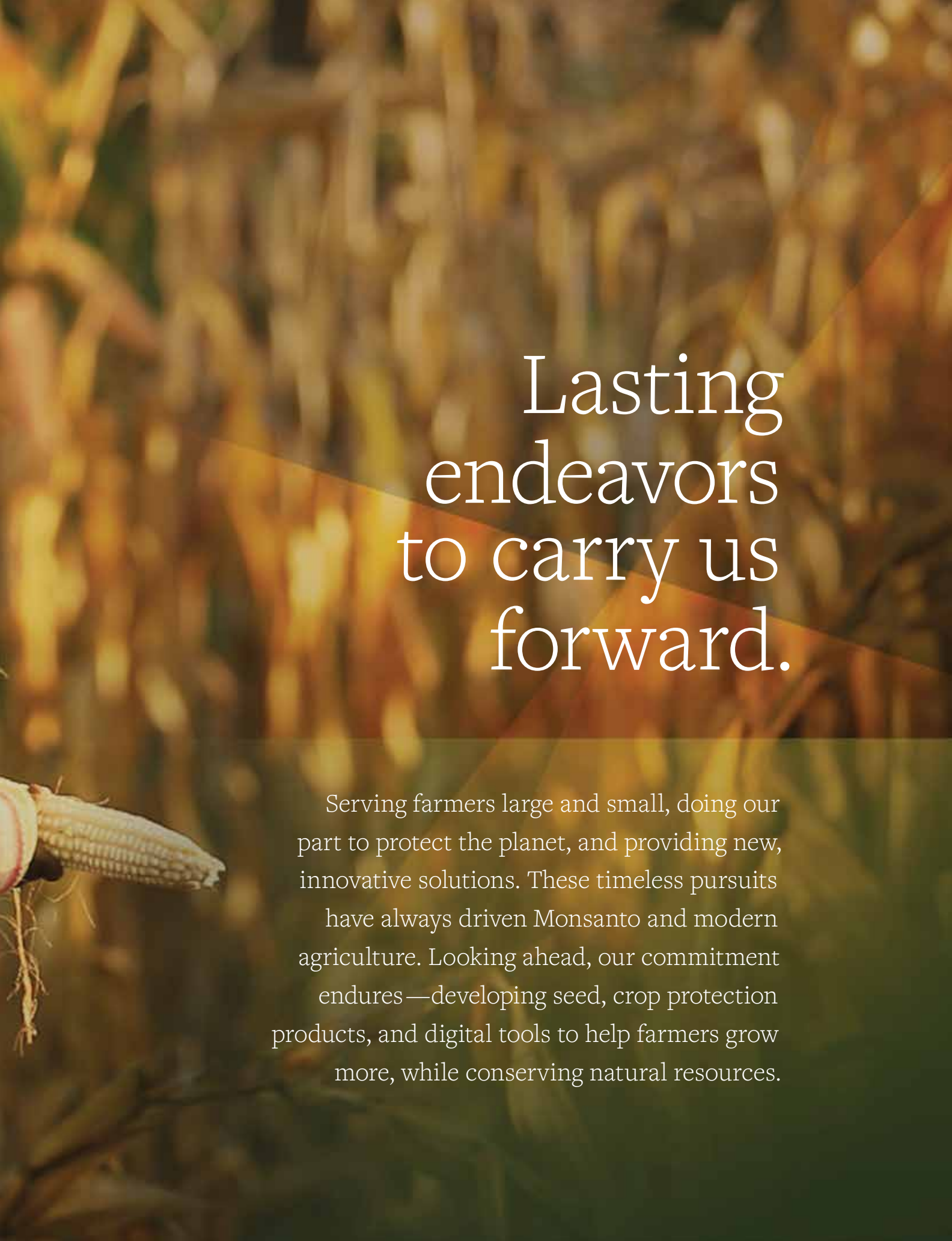
Sharing Value, Sustaining Innovation

2017 Annual Report

MONSANTO



Lasting endeavors to carry us forward.

Serving farmers large and small, doing our part to protect the planet, and providing new, innovative solutions. These timeless pursuits have always driven Monsanto and modern agriculture. Looking ahead, our commitment endures—developing seed, crop protection products, and digital tools to help farmers grow more, while conserving natural resources.

Dear Shareowners,

As I look toward the future, I see a landscape in which modern agriculture continues to evolve, combining generations of growers' expertise with products developed using the most promising and emerging technology. Farming will continue to become even more precise, more innovative, and more efficient for growers and consumers.

Your company will evolve as well.

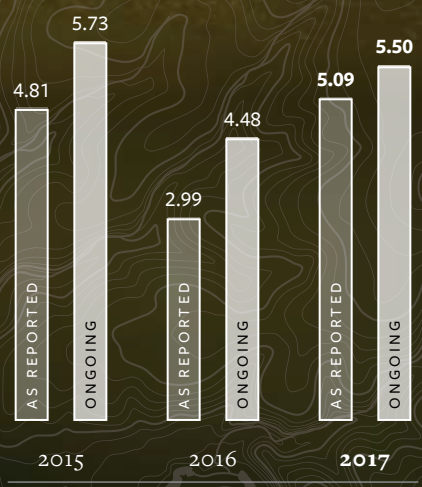
In early fiscal year 2017, we entered into a definitive merger agreement under which Bayer will acquire Monsanto. From delivering new choices even faster to expanding current solutions, this combination will support growers in their efforts to be more productive, more profitable, and more sustainable. Bayer continues to lead the regulatory approval process, and both companies are committed to working constructively with global regulators to conclude the transaction successfully.

In addition to the progress on the pending combination with Bayer, Monsanto advanced its mission to broaden the selection of innovative solutions for growers and delivered solid results for our owners. The company concluded fiscal year 2017 with as-reported earnings per share of $5.09 and ongoing earnings per share of $5.50, as compared to last year's as-reported earnings per share of $2.99 and ongoing earnings per share of $4.48.[2]

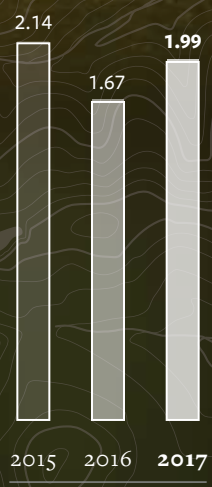
Our innovation resulted in record sales and gross profit in our Seeds and Genomics segment, fueled by the outstanding adoption of our latest soybean and cotton technologies and continued adoption of our newest corn hybrids, reflecting the need for new solutions in what continues to be a challenging agricultural economy.

2017 Financial Highlights

Net Sales
In billions of dollars,
for years ended Aug. 31



Earnings Per Share[2]
In dollars,
for years ended Aug. 31



Free Cash Flow[3]
In billions of dollars,
for years ended Aug. 31

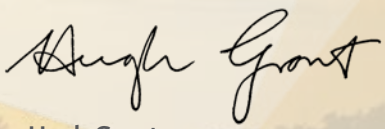
We grew our strong foundation of seed, trait, digital, and chemistry solutions with the expansion of the Roundup Ready® Xtend Crop System, Climate FieldView™ platform, and Intacta RR2 PRO™ soybeans. The Climate FieldView platform reached 35 million paid acres in fiscal year 2017 and continued global expansion in Brazil, Europe, and Canada. Roundup Ready 2 Xtend® soybeans and cotton reached more than 26 million acres in the U.S., showcasing the demand for better weed control.

In the area of sustainability, we established a unified approach to food and nutrition security and reaffirmed our commitments to the United Nations Global Compact and Sustainable Development Goals. We also continue to make progress toward achieving a carbon neutral footprint by 2021. While we're proud of the strides we've made in sustainability, we know there is more work to be done and look forward to continued progress.

We've made significant advances in 2017, and we expect these to accelerate in 2018. Our commitment to what we value — our customers, our owners, our employees, and our communities — remains as vibrant as ever. I'm proud of what we've delivered and look forward to what our future holds.

On behalf of the board of directors and the employees of Monsanto, thank you for your continued support.

Best regards,



Hugh Grant

Chairman of the Board of Directors and Chief Executive Officer

(in millions, except per share amounts)

Years ended Aug. 31	**2017**	2016	2015	% Change 2017 vs. 2016
OPERATING RESULTS				
Net Sales	**$ 14,640**	$ 13,502	$ 15,001	8%
EBIT[1]	**$ 3,263**	$ 2,408	$ 3,500	36%
Net Income Attributable to Monsanto Company	**$ 2,260**	$ 1,336	$ 2,314	69%
Diluted Earnings Per Share[2]	**$ 5.09**	$ 2.99	$ 4.81	70%
OTHER SELECTED DATA				
Free Cash Flow[3]	**$ 1,986**	$ 1,665	$ 2,141	19%
Capital Expenditures	**$ 1,240**	$ 923	$ 967	34%
Depreciation and Amortization	**$ 748**	$ 727	$ 716	3%
Diluted Shares Outstanding[2]	**443.8**	447.1	481.4	(1%)

See page 8 for Notes to 2017 Financial Highlights and Charts

Board of Directors

Dwight M. "Mitch" Barns, 54, is the chief executive officer and a director of Nielsen Holdings plc, a global performance management company that provides a comprehensive understanding of what consumers watch and buy. He joined Nielsen in 1997 and has served in various senior positions for the company in the United States, Europe, and Asia. He served as Nielsen's president, global client service from 2013 to 2014, was president of Nielsen's U.S. media business from 2011 to 2013, and was president of Nielsen's Greater China business from 2008 to 2011. Mr. Barns was elected to the Monsanto board in March 2016 and is a member of the People and Compensation Committee and the Sustainability and Corporate Responsibility Committee.

Gregory H. Boyce, 63, is a retired executive chairman of the board and chief executive officer of Peabody Energy Corporation, the world's largest private-sector coal company and a global leader in sustainable mining, energy access, and clean coal solutions. Mr. Boyce joined Peabody Energy in 2003 as president and chief operating officer, became president and chief executive officer in 2006, and was appointed chairman in 2007. He also served as executive chairman of the board from January 2015 to December 2015. Mr. Boyce was elected to the Monsanto board in April 2013 and is a member of the Audit and Finance Committee and the People and Compensation Committee. He also serves on the board of Marathon Oil Corporation, where he chairs the Compensation Committee, and Newmont Mining Corporation.

David L. Chicoine, Ph.D., 70, is currently an interim dean at University of Wyoming College of Business, president emeritus and professor emeritus at South Dakota State University, and professor emeritus at the University of Illinois Urbana-Champaign. Dr. Chicoine is a former president of South Dakota State University, South Dakota's land grant research institution. He served as president of the university from 2007–2016 and professor of economics from 2016 until his retirement in May. Prior to 2007, he was professor of agricultural economics at the University of Illinois at Urbana-Champaign and held various positions of increasing administrative responsibility with the University of Illinois, including department head and dean and most recently as vice president for technology and economic development. Dr. Chicoine was elected to the Monsanto board in April 2009 and is a member of the Science and Technology Committee and of the Sustainability and Corporate Responsibility Committee. Dr. Chicoine also serves on the board of Raven Industries, Inc.

Janice L. Fields, 62, is a former president of McDonald's USA, LLC, a subsidiary of McDonald's Corporation, the world's leading global foodservice retailer. She served as president of McDonald's USA from 2010 to 2012 and was executive vice president and chief operating officer from 2006 to 2010. Her career with McDonald's USA spans more than 35 years. Ms. Fields was elected to the Monsanto board in April 2008. She chairs the board's Sustainability and Corporate Responsibility Committee and is a member of the Executive Committee, the Nominating and Corporate Governance Committee, and the People and Compensation Committee. Ms. Fields also serves on the board of Chico's FAS, Inc. and Buffalo Wild Wings, Inc.

Hugh Grant, 59, is chairman of the board and chief executive officer of Monsanto. He has worked in agriculture since 1981 and has held a variety of management positions, most recently chairman of the board, president, and chief executive officer. Mr. Grant chairs the Executive Committee. He also serves on the board of PPG Industries, Inc. He has lived and worked in a number of locations outside the United States, including Asia and Europe.

PICTURED FROM LEFT TO RIGHT: Jon R. Moeller, Laura K. Ipsen, Marcos M. Lutz, Janice L. Fields, Robert J. Stevens, Hugh Grant, C. Steven McMillan, David L. Chicoine, Patricia D. Verduin, Gregory H. Boyce, Dwight M. "Mitch" Barns, George H. Poste

Laura K. Ipsen, 53, is the senior vice president and general manager of Oracle Marketing Cloud for Oracle Corporation. In this capacity, Ms. Ipsen leads a team of 2,000 sales, services, customer success, and marketing experts that sells MarTech and AdTech solutions for marketing automation and leveraging big data analytics. She served as senior vice president and general manager of the Global Industry Solutions Group from September 2014 to July 2016. Prior to joining Oracle, Ms. Ipsen was the corporate vice president of Microsoft Corporation's Worldwide Public Sector from 2012 to September 2014. Previously, she was senior vice president and general manager, Connected Energy Networks, Cisco Systems, Inc. from 2010–2012, and served in leadership roles in the SmartGrid business unit and Global Policy and Government Affairs Department at Cisco. Ms. Ipsen is a senior fellow of the American Leadership Forum, Silicon Valley. Ms. Ipsen was elected to the Monsanto board in December 2010 and is a member of the Science and Technology Committee and the Sustainability and Corporate Responsibility Committee.

Marcos M. Lutz, 47, has been the chief executive officer of Cosan Limited since April 2015. He previously served as chief executive officer of Cosan S.A. Indústria e Comércio from October 2009 to April 2015. Cosan and its subsidiaries engage in the production and sale of sugar and ethanol worldwide, distribution of fuels and lubricants in Brazil, and operation of port and rail logistics. Prior to joining Cosan, Mr. Lutz served as vice president, Infrastructure and Energy, and was also in charge of Hydroelectric Plants, Logistics, Railways, and Port Terminals at Companhia Siderurgica Nacional (CSN) from 2003 to 2006. Mr. Lutz was elected to the Monsanto board in 2014 and is a member of the Science and Technology Committee and the Sustainability and Corporate Responsibility Committee. Mr. Lutz also serves on the board of Cosan Limited.

C. Steven McMillan, 71, is a retired chairman of the board and chief executive officer of Sara Lee Corporation, a global consumer packaged goods company whose brands, during his tenure, included Sara Lee, Hillshire Farm, Earth Grains, Jimmy Dean, Douwe Egberts, Coach, Hanes, Playtex, and Champion. He has served as a director on the Monsanto board since June 2000. Mr. McMillan chairs the board's People and Compensation Committee, and he is a member of the Audit and Finance Committee, the Executive Committee, and the Nominating and Corporate Governance Committee.

Jon R. Moeller, 53, is vice chairman and chief financial officer of The Procter & Gamble Company, one of the world's leading consumer products companies. In his 29 years of experience at The Procter & Gamble Company, he has held a variety of positions within the finance and accounting department, including international experience and service as the company's treasurer. Mr. Moeller also serves as a lecturer at the Cornell University Johnson Graduate School of Management. Mr. Moeller was elected to the Monsanto board in August 2011. Mr. Moeller chairs the board's Audit and Finance Committee, and he is a member of the Nominating and Corporate Governance Committee.

George H. Poste, Ph.D., D.V.M., 73, is chief executive of Health Technology Networks, a consulting group specializing in the application of genomics technologies and computing in health care. In February 2009, he assumed the post of chief scientist, Complex Adaptive Systems Initiative at Arizona State University. From May 2003 to February 2009, he was director of the Arizona Biodesign Institute at Arizona State University. Dr. Poste is a former member of the Defense Science Board and the Health Board of the U.S. Department of Defense. He is a Fellow of the Royal Society, the Royal College of Pathologists, and the UK Academy of Medicine and Distinguished Fellow at the Hoover Institution at Stanford University. Dr. Poste is also a member of the Council on Foreign Relations. He has served on the Monsanto board since February 2003. Dr. Poste chairs the Science and Technology Committee and is a member of the Sustainability and Corporate Responsibility Committee. Dr. Poste also serves on the board of Exelixis, Inc.

Robert J. Stevens, 66, is a retired chairman of the board and chief executive officer of Lockheed Martin Corporation, a firm engaged in the research, design, development, manufacture, and integration of advanced-technology systems, products, and services. Prior to his retirement, he served as the corporation's chairman from April 2005 to January 2013 and as its chief executive officer from August 2004 through December 2012. He served as executive chairman of the board from January 2013 until January 2014. Previously, he held a variety of increasingly responsible executive positions with the corporation, including president and chief operating officer, chief financial officer, and head of Strategic Planning. In January 2012, he was appointed by President Barack Obama to the Advisory Committee for Trade Policy and Negotiations. Mr. Stevens has served as a director on the Monsanto board since August 2002. He chairs the board's Nominating and Corporate Governance Committee, he is a member of the Audit and Finance Committee and the Executive Committee, and he serves as Monsanto's lead director. Mr. Stevens also serves on the board of United States Steel Corporation.

Patricia D. Verduin, Ph.D., 58, is chief technology officer of Colgate-Palmolive Company, a global consumer products company. In her role, she leads the development of Colgate's products and technologies, including responsibility for product safety, quality, and regulatory matters. She joined Colgate in 2007, first serving as vice president of global research and development before assuming her current role in 2011. Prior to joining Colgate, Dr. Verduin was senior vice president and chief science officer for the Grocery Manufacturers Association and senior vice president of product quality and development at ConAgra Foods, Inc. Dr. Verduin was elected to the Monsanto board in 2015 and is a member of the Science and Technology Committee and the Sustainability and Corporate Responsibility Committee.

Note: Information is current as of November 27, 2017.

PICTURED FROM LEFT TO RIGHT: Michael K. Stern, David F. Snively, Nicole M. Ringenberg, Robert T. Fraley, Pierre C. Courduroux, Hugh Grant, Brett D. Begemann, Steven C. Mizell, Janet M. Holloway, Kerry J. Preete

Executive Team

Hugh Grant
Chairman and Chief Executive Officer

Brett D. Begemann
President and Chief Operating Officer

Pierre C. Courduroux
Senior Vice President
and Chief Financial Officer

Robert T. Fraley, Ph.D
Executive Vice President
and Chief Technology Officer

Janet M. Holloway
Senior Vice President, Chief of Staff
and Community Relations

Steven C. Mizell
Executive Vice President and
Chief Human Resources Officer

Duraiswami Narain
Vice President and Treasurer

Kerry J. Preete
Executive Vice President and
Chief Strategy Officer

Nicole M. Ringenberg
Vice President and Controller

David F. Snively
Executive Vice President, Secretary
and General Counsel

Michael K. Stern, Ph.D
Vice President, and Chief Executive
Officer, Climate

Note: Information is current as of November 27, 2017.

Seeking Greater Return for the Earth

Sustainability will always play a key role in every product and service we provide to farmers. And the positive impact of using less water, land, and energy will only compound the need to work together more. Across the supply chain and throughout the planet, we remain committed to the essential act of growing more, while conserving natural resources.

Visit **sustainability.monsanto.com** to learn more.

Notes to Financial Highlights and Charts

EBIT, Ongoing EPS, and Free Cash Flow

The presentations of EBIT, ongoing EPS, and free cash flow are non-GAAP financial measures intended to supplement investors' understanding of our operating performance. The notes below define these non-GAAP measures and reconcile them to the most directly comparable financial measures calculated and presented in accordance with GAAP.

1. Reconciliation of EBIT to Net Income Attributable to Monsanto Company

EBIT is defined as earnings (loss) before interest and taxes. Earnings (loss) is intended to mean net income (loss) attributable to Monsanto Company as presented in the Statements of Consolidated Operations under GAAP. The following table reconciles EBIT to the most directly comparable financial measure, which is net income (loss) attributable to Monsanto Company.

	12 Months Ended Aug. 31		
(Dollars in Millions)	**2017**	2016	2015
EBIT — Total[A]	**$ 3,263**	$ 2,408	$ 3,500
Interest Expense — Net	**376**	362	328
Income Tax Provision[B]	**627**	710	858
Net Income Attributable to Monsanto Company	**$ 2,260**	$ 1,336	$ 2,314

(A) Includes the income from operations of discontinued businesses and the income (loss) from operations of non-controlling interests.

(B) Includes no income tax provision on discontinued operations and the income tax expense (benefit) of non-controlling interest.

2. Reconciliation of EPS to Ongoing EPS

Ongoing Earnings per Share (EPS) is calculated excluding certain after-tax items which Monsanto does not consider part of ongoing operations. The reconciliation of EPS to ongoing EPS for each period is included in the table below.

	12 Months Ended Aug. 31		
	2017	2016	2015
Diluted Earnings Per Share	**$ 5.09**	$ 2.99	$ 4.81
Items Affecting Comparability:			
Income on Discontinued Operations	**(0.03)**	(0.04)	(0.06)
Environmental and Litigation Matters	**0.05**	0.38	0.11
Restructuring Charges	**(0.03)**	0.59	0.70
SEC Matters	**—**	—	0.17
Argentine-Related Tax Matters	**0.10**	0.56	—
Pending Bayer Transaction Related Costs	**0.32**	—	—
Diluted Earnings per Share from Ongoing Business	**$ 5.50**	$ 4.48	$ 5.73

3. Reconciliation of Free Cash Flow

Free cash flow represents the total of cash flows from operating activities less capital expenditures, as reflected in the Statements of Consolidated Cash Flows.

	12 Months Ended Aug. 31		
(Dollars in Millions)	**2017**	2016	2015
Net Cash Provided by Operating Activities	**$ 3,226**	$ 2,588	$ 3,108
Net Cash Required by Investing Activities	**(1,107)**	(864)	(1,019)
Net Cash Required by Financing Activities	**(1,966)**	(3,742)	(430)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	**27**	(7)	(325)
Net Increase (Decrease) in Cash and Cash Equivalents	**$ 180**	$(2,025)	$ 1,334
Net Cash Provided by Operating Activities	**$ 3,226**	$ 2,588	$ 3,108
Capital Expenditures	**(1,240)**	(923)	(967)
Free Cash Flow	**$ 1,986**	$ 1,665	$ 2,141

Caution Regarding Forward-Looking Statements: This Annual Report contains "forward-looking statements," as described in the attached Form 10-K under the caption "Caution Regarding Forward-Looking Statements" on page 2, which are subject to various risks and uncertainties, including, without limitation, the "Risk Factors" beginning on page 9, which could cause actual results to differ materially from those statements. Please refer to those sections of the 10-K for additional information.

Sharing Value,
Sustaining Innovation

FORM 10-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(MARK ONE)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended Aug. 31, 2017

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 001-16167

MONSANTO COMPANY

Exact name of registrant as specified in its charter

Delaware	43-1878297
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
800 North Lindbergh Blvd., St. Louis, Missouri	63167
(Address of principal executive offices)	*(Zip Code)*

Registrant's telephone number including area code:
(314) 694-1000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	*Name of each exchange on which registered*
Common Stock $0.01 par value	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of ''large accelerated filer,'' ''accelerated filer,'' ''smaller reporting company,'' and ''emerging growth company'' in Rule 12b-2 of the Exchange Act. (Check One): Large Accelerated Filer ☑ Accelerated Filer ☐ Non-Accelerated Filer ☐ Smaller Reporting Company ☐ Emerging Growth Company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter (Feb. 28, 2017): approximately $49.8 billion.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: 440,199,969 shares of common stock, $0.01 par value, outstanding at Oct. 25, 2017.

Documents Incorporated by Reference

Portions of Monsanto Company's definitive proxy statement for its 2018 Annual Meeting of Shareowners or an amendment to this Annual Report on Form 10-K, which is expected to be filed with the Securities and Exchange Commission within 120 days of Aug. 31, 2017, are incorporated herein by reference into Part III of this Annual Report on Form 10-K for the fiscal year ended Aug. 31, 2017.

INTRODUCTION

This Annual Report on Form 10-K is a document that U.S. public companies file with the Securities and Exchange Commission (''SEC'') every year. Part II of the Form 10-K contains the business information and financial statements that many companies include in the financial sections of their annual reports. The other sections of this Form 10-K include further information about our business that we believe will be of interest to investors. We hope investors will find it useful to have all of this information in a single document.

The SEC allows us to report information in the Form 10-K by ''incorporating by reference'' from another part of this Form 10-K, from an amendment to this Form 10-K or from our proxy statement. You will see that information is ''incorporated by reference'' in various parts of this Form 10-K. An amendment to this Form 10-K or our proxy statement is expected to be available on our website after it is filed with the SEC in December 2017.

Monsanto was incorporated in Delaware on Feb. 9, 2000, as a subsidiary of Pharmacia Corporation (subsequently converted to Pharmacia LLC). Monsanto includes the operations, assets and liabilities that were previously the agricultural business of Pharmacia. Pharmacia is now a subsidiary of Pfizer Inc.

Unless otherwise indicated, ''Monsanto,'' ''the company,'' ''we,'' ''our'' and ''us'' are used interchangeably to refer to Monsanto Company or to Monsanto Company and its subsidiaries, as appropriate to the context.

Unless otherwise indicated, trademarks owned or licensed by Monsanto or its subsidiaries are shown in special type. Unless otherwise indicated, references to *''Roundup* herbicides'' mean *Roundup* branded herbicides, excluding all lawn-and-garden herbicides and other glyphosate-based herbicides, and references to *''Roundup* and other glyphosate-based herbicides'' exclude all lawn-and-garden herbicides.

Information in this Form 10-K is current as of October 27, 2017, unless otherwise specified.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

In this report, and from time to time throughout the year, we share our expectations for our company's future performance. These forward-looking statements include statements about our business plans; the pending transaction with Bayer Aktiengesellschaft (''Bayer''); the potential development, regulatory approval and public acceptance of our products; our expected financial performance, including sales performance, and the anticipated effect of our strategic actions; the anticipated benefits of acquisitions; the outcome of contingencies, such as litigation; domestic or international economic, political and market conditions; and other factors that could affect our future results of operations or financial position, including, without limitation, statements under the captions ''Legal Proceedings,'' ''Overview — Executive Summary — Outlook,'' ''Seeds and Genomics Segment,'' ''Agricultural Productivity Segment,'' ''Financial Condition, Liquidity, and Capital Resources'' and ''Outlook.'' Any statements we make that are not matters of current reportage or historical fact should be considered forward-looking. Such statements often include words such as ''believe,'' ''expect,'' ''anticipate,'' ''intend,'' ''plan,'' ''estimate,'' ''will'' and similar expressions. By their nature, these types of statements are uncertain and are not guarantees of our future performance.

Our forward-looking statements represent our estimates and expectations at the time that we make them. However, circumstances change constantly, often unpredictably, and investors should not place undue reliance on these statements. Many events beyond our control will determine whether our expectations will be realized. We disclaim any current intention or obligation to revise or update any forward-looking statements, or the factors that may affect their realization, whether in light of new information, future events or otherwise, and investors should not rely on us to do so. In the interests of our investors, Part I. Item 1A. Risk Factors below sets forth some of the important reasons that actual results may be materially different from those that we anticipate.

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PART I

ITEM 1. BUSINESS

Monsanto Company, along with its subsidiaries, is a leading global provider of agricultural products for farmers. Our seeds, biotechnology trait products, herbicides and digital agriculture products provide farmers with solutions that help improve productivity, reduce the costs of farming and produce better foods for consumers and better feed for animals.

We manage our business in two reportable segments: Seeds and Genomics and Agricultural Productivity. We view our Seeds and Genomics segment as the driver for future growth for our company. In our Agricultural Productivity segment, global glyphosate producers have substantial capacity to supply the market, and we expect this global capacity to maintain pressure on margins.

On Sept. 14, 2016, we entered into an agreement and plan of merger (the ''Merger Agreement'') with Bayer Aktiengesellschaft, a German stock corporation (''Bayer''), and KWA Investment Co., a Delaware corporation and an indirect wholly owned subsidiary of Bayer (''Merger Sub''). The Merger Agreement provides, among other things and subject to the terms and conditions set forth therein, that Merger Sub will be merged with and into the company (the ''Merger''), with the company continuing as the surviving corporation and as a wholly owned subsidiary of Bayer. The Merger Agreement provides that each share of common stock of the company, par value $0.01 per share (other than certain shares specified in the Merger Agreement), outstanding immediately prior to the effective time of the Merger will be automatically converted into the right to receive $128.00 in cash, without interest. The obligation of the parties to complete the Merger is subject to customary closing conditions, including, among others, (i) the approval of the adoption of the Merger Agreement by the holders of a majority of the outstanding shares of common stock of the company entitled to vote, which was obtained at a special meeting of the company's shareowners held on Dec. 13, 2016, (ii) the expiration or earlier termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, (iii) the adoption of all approvals necessary for the completion of the Merger by the European Commission under Council Regulation (EC) No. 139/2004, (iv) the receipt of certain other required foreign antitrust approvals, (v) completion of the review process by the Committee on Foreign Investment in the United States (''CFIUS''), (vi) no approvals related to CFIUS or antitrust laws having been made or obtained with the imposition of conditions that, together with Divestiture Actions (as defined in the Merger Agreement) undertaken, would reasonably be expected to have a Substantial Detriment (as defined in the Merger Agreement), (vii) no law, order or injunction having been enacted, issued, promulgated, enforced or entered after Sept. 14, 2016, by a court or other governmental entity of competent jurisdiction that is in effect that enjoins or otherwise prohibits the completion of the Merger, (viii) the accuracy of the representations and warranties contained in the Merger Agreement (subject to certain qualifications) and (ix) the performance by the parties of their respective obligations under the Merger Agreement in all material respects. Additional information about the Merger Agreement is set forth in our Current Report on Form 8-K filed with the SEC on Sept. 20, 2016.

We provide information about our business, including analyses, significant news releases and other supplemental information, on our website: www.monsanto.com. In addition, we make available through our website, free of charge, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after they have been filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. Forms 3, 4 and 5 filed with respect to our equity securities under Section 16(a) of the Exchange Act are also available on our website by the end of the business day after filing. All of these materials can be found under the ''Investors'' caption. Our website also includes the following corporate governance materials, under the caption ''Company — Governance'': our Code of Business Conduct, our Code of Ethics for Chief Executive and Senior Financial Officers, our Board of Directors' Charter and Corporate Governance Guidelines and charters of our Board committees. These materials are also available on paper. Any shareowner may request them by contacting the Office of the General Counsel, Monsanto Company, 800 N. Lindbergh Blvd., St. Louis, Missouri, 63167. Information on our website does not constitute part of this report.

A description of our business follows.

SEEDS AND GENOMICS SEGMENT

Through our Seeds and Genomics segment, we produce leading seed brands, including *DEKALB, Asgrow, Deltapine, Seminis* and *De Ruiter,* and we develop biotechnology traits that assist farmers in controlling insects and weeds and digital agriculture products to assist farmers in decision making. We also provide other seed companies with technology and genetic material for their seed brands. The tabular information about net sales of our seeds and traits that appears in Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) — Seeds and Genomics Segment — is incorporated herein by reference.

Major Products	Applications	Major Brands
Germplasm	Row crop seeds: Corn hybrids and foundation seed Soybean varieties and foundation seed Cotton varieties, hybrids and foundation seed Other row crop varieties and hybrids, such as canola	*DEKALB, Channel* for corn *Asgrow* for soybeans *Deltapine* for cotton
	Vegetable seeds: Open field and protected-culture seed for tomato, pepper, melon, cucumber, squash, beans, broccoli, onions, and lettuce, among others	*Seminis* and *De Ruiter* for vegetable seeds
Biotechnology traits[1]	Enable crops to protect themselves from borers and rootworm in corn, certain lepidopteran insects in soybeans, and leaf- and boll-feeding worms in cotton, reducing the need for applications of insecticides	*SmartStax, YieldGard, YieldGard VT Triple, VT Triple PRO* and *VT Double PRO* for corn; *Intacta RR2 PRO* for soybeans; *Bollgard* and *Bollgard II* for cotton
	Enable crops, such as corn, soybeans, cotton and canola, to be tolerant of *Roundup* branded and other glyphosate-based herbicides	*Roundup Ready* and *Roundup Ready 2 Yield* (soybeans only)
	Enable cotton and soybean crops to be tolerant of dicamba herbicides	*Roundup Ready 2 Xtend* for soybeans and *Bollgard II XtendFlex* for cotton

[1] Including stacked-trait products, which are single-seed products in which two or more traits are combined.

Distribution of Products

We have a worldwide distribution and sales and marketing organization for our seeds and traits. We sell our products under Monsanto brands and license technology and genetic material to others for sale under their own brands. Through distributors, independent retailers and dealers, agricultural cooperatives and agents, we market our *DEKALB, Asgrow* and *Deltapine* branded germplasm to farmers in every agricultural region of the world. In the United States, we market regional seed brands under our American Seeds, LLC and Channel Bio, LLC businesses to farmers directly, as well as through dealers, agricultural cooperatives and agents. In countries where they are approved for sale, we market and sell our trait technologies with our branded germplasm, pursuant to license agreements with our farmer customers. In Brazil, Argentina and Paraguay, we have implemented a point-of-delivery, grain-based payment system. We contract with grain handlers to collect applicable trait fees when farmers deliver grain for which trait fees have not already been paid. In addition to selling our products under our own brands, we license a broad package of germplasm and trait technologies to large and small seed companies in the United States and certain international markets. Those seed companies in turn market our trait technologies in their branded germplasm; they may also market our germplasm under their own brand name. Our vegetable seeds are predominantly marketed under either the *Seminis* or *De Ruiter* brand in more than 150 countries either directly to farmers or through distributors, independent retailers and dealers, agricultural cooperatives, plant raisers and agents.

Competition

The global market for the products of our Seeds and Genomics segment is competitive, and the competition has intensified. Both our row crops and our vegetable seed businesses compete with numerous multinational agrichemical and seed marketers globally and with hundreds of smaller companies regionally. Most of our seed competitors in row crops are also licensees of our germplasm or biotechnology traits, and a few of our vegetable seed business competitors have licensed biotech traits for sweet corn or genetic improvements through advanced breeding. In certain countries, we also compete with government-owned seed companies. Our biotechnology traits compete as a system with other practices, including the application of agricultural chemicals, and traits developed by other companies. Genome editing technology, application of emerging data sciences capabilities, and other advancements in breeding technology may enable potentially disruptive improvements in genetic performance by competitors or new market entrants. Our weed- and insect-control systems compete with chemical and seed products produced by other agrichemical and seed marketers. Competition for the discovery of new traits based on biotechnology or genomics is likely to come from major global agrichemical companies, smaller biotechnology research companies and institutions, state-funded programs and academic

institutions. Enabling technologies to enhance biotechnology trait development may also come from academic researchers and biotechnology research companies. Competitors using our technology outside of license terms and farmers who save seed from one year to the next also affect competitive conditions.

Product performance (in particular, crop vigor and yield for our row crops and quality for our vegetable seeds), customer support and service, intellectual property rights and protection, product availability and planning and price are important elements of our market success in seeds. In addition, distributor, retailer and farmer relationships are important in the United States and many other countries. The primary factors underlying the competitive success of traits are performance and commercial viability; timeliness of introduction; value compared with other practices and products; market coverage; service provided to distributors, retailers and farmers; governmental approvals; value capture; public acceptance; and environmental characteristics.

Patents, Trademarks and Licenses

In the United States and many foreign countries, we hold a broad business portfolio of patents, trademarks and licenses that provide intellectual property protection for our seeds and genomics-related products and processes. Monsanto routinely obtains patents and/or plant variety protection for its breeding technology, commercial varietal seed products and for the parents of its commercial hybrid seed products. We also routinely obtain registrations for commercial seed products in registration countries, as well as Plant Variety Protection Act Certificates in the United States and equivalent plant breeders' rights in other countries. In soybeans, while our patent coverage on the first generation *Roundup Ready* trait for soybeans has expired, most *Roundup Ready* soybeans in the U.S. are protected by utility patents covering specific varieties. In addition, most of our customers and licensees are choosing our second generation *Roundup Ready 2 Yield* trait for soybeans with patent coverage that extends into the next decade. In Brazil and Argentina, farmers are adopting our next generation *Intacta RR2 PRO* soybean that also has patent coverage extending into the next decade. Patents on our next-generation herbicide trait which confers dicamba tolerance extend into the next decade. In corn, patent coverage on our first generation *YieldGard* trait has expired; however, most farmers have already upgraded to next generation branded corn traits with patent coverage extending into the next decade. In cotton, most growers globally are already using our second generation traits with patent coverage extending into the next decade.

We broadly license technology and patents to other parties. For example, we have licensed the *Roundup Ready* trait in soybean, corn, canola and cotton seeds, the *YieldGard* traits in corn and the *Intacta RR2 PRO* and *Roundup Ready 2 Xtend* traits in soybeans to a wide range of commercial entities and in some cases academic institutions. We also hold licenses from other parties relating to certain products and processes. For example, we have obtained licenses to certain technologies that we use to produce *Roundup Ready* seeds and *SmartStax* corn. These licenses generally last for the lifetime of the applicable patents.

We own trademark registrations and file trademark applications for the names and for many of the designs used on branded products around the world. Important company trademarks include *Roundup Ready, Bollgard, YieldGard, Roundup Ready 2 Yield, Roundup Ready 2 Xtend, Intacta RR2 PRO, VT Double PRO* and *SmartStax* for traits; *Acceleron* for seed treatment products; *DEKALB, Asgrow* and *Deltapine* for row crop seeds; and *Seminis* and *De Ruiter* for vegetable seeds.

Raw Materials and Energy Resources

In growing locations throughout the world, we produce directly or contract with third-party growers for corn seed, soybean seed, vegetable seeds, cotton seed, canola seed and other seeds. The availability of seed and the cost of seed production depend primarily on seed yields, weather conditions, grower contract terms and commodity prices. Where practical, we seek to manage commodity price fluctuations through the use of futures contracts and other hedging instruments. Where practicable, we attempt to minimize weather risks by producing seed at multiple growing locations and under irrigated conditions. Our Seeds and Genomics segment also purchases the energy we need to process our seed; these energy purchases are managed in conjunction with our Agricultural Productivity segment.

AGRICULTURAL PRODUCTIVITY SEGMENT

Through our Agricultural Productivity segment, we manufacture *Roundup* brand herbicides and other herbicides and provide lawn-and-garden herbicide products for the residential market. The tabular information about net sales of agricultural productivity products that appears in Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) — Agricultural Productivity Segment — is incorporated by reference herein.

Major Products	Applications	Major Brands
Herbicides	Nonselective agricultural and residential lawn and garden applications for weed control	*Roundup* branded products
	Selective agricultural applications for weed control	*XtendiMax* Herbicide with *VaporGrip* Technology

Distribution of Products

We have a worldwide distribution and sales and marketing organization for our agricultural productivity products. In some world areas, we use the same distribution and sales and marketing organization for our agricultural productivity products as for our seeds and traits. In other world areas, we have separate distribution and sales and marketing organizations for our agricultural productivity products. We sell our agricultural productivity products through distributors, independent retailers and dealers and agricultural cooperatives. In some cases outside the United States, we sell such products directly to farmers. We also sell certain of the chemical intermediates of our agricultural productivity products to other major agricultural chemical

producers, who then market their own branded products to farmers. Certain agricultural productivity products for lawn-and-garden use are marketed through The Scotts Miracle-Gro Company (''Scotts'').

Competition

We compete with numerous major global manufacturing companies for sales of agricultural herbicides. Competition from local or regional companies may also be significant. Global glyphosate producers have substantial capacity to supply the market, and we expect this global capacity to affect margins. Launch of dicamba-tolerant crop systems and other multiple mode of action herbicide systems is expected to broaden the competitive landscape with new competitive dynamics. Our lawn-and-garden business has fewer than five significant national competitors and a larger number of regional competitors in the United States. The largest market for our lawn-and-garden herbicides is the United States.

Competitive success in agricultural productivity products depends on price, product performance, the scope of solutions offered to farmers, market coverage, product availability and planning, and the service provided to distributors, retailers and farmers. Our lawn-and-garden herbicides compete on product performance, price and the brand value associated with our trademark *Roundup*. For additional information on competition for our agricultural herbicides, see Item 7 — MD&A — Outlook — Agricultural Productivity, which is incorporated by reference herein.

Patents, Trademarks, Licenses, Franchises and Concessions

We also rely on patent protection for the Agricultural Productivity segment of our business. Patents covering glyphosate, an active ingredient in *Roundup* branded herbicides, have expired in the United States and all other countries. However, we have multiple patents on different glyphosate formulations and manufacturing processes in the United States and other countries with varying expiration dates. We have obtained licenses to chemicals used to make *Harness* herbicides and hold trademark registrations for the brands under which our chemistries are sold. The most significant trademark in this segment is *Roundup*. We own trademark registrations for numerous variations of *Roundup* such as for *Roundup WeatherMAX*.

We hold (directly or by assignment) numerous phosphate mineral leases from the U.S. government, the state of Idaho and private parties. None of these leases are material individually, but are significant in the aggregate because elemental phosphorus is a key raw material for the production of glyphosate-based herbicides. The phosphate mineral leases have varying terms. The leases obtained from the U.S. government are of indefinite duration, subject to the modification of lease terms at 20-year intervals.

Environmental Matters

Our operations are subject to environmental laws and regulations in the jurisdictions in which we operate. Some of these laws restrict the amount and type of emissions that our operations can release into the environment. Other laws, such as the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 *et seq*. (Superfund), can impose liability for the entire cost of cleanup on any former or current site owners or operators or any parties who sent waste to these sites, without regard to fault or to the lawfulness of the original disposal. These laws and regulations may be amended from time to time; they may become more stringent. We are committed to long-term environmental protection and compliance programs that reduce and monitor emissions of hazardous materials into the environment, and to the remediation of identified existing environmental concerns. Although the costs of our compliance with environmental laws and regulations cannot be predicted with certainty, such costs are not expected to have a material adverse effect on our earnings or competitive position. In addition to compliance obligations associated with our operations, under the terms of our Sept. 1, 2000, Separation Agreement with Pharmacia (the Separation Agreement), we are required to indemnify Pharmacia for certain liabilities it may have for environmental remediation or other environmental responsibilities that are primarily related to Pharmacia's former chemical and agricultural businesses. For information regarding certain environmental proceedings, see Item 3 — Legal Proceedings. See also information regarding environmental liabilities, appearing in Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies, which is incorporated herein by reference.

Raw Materials and Energy Resources

We are a significant purchaser of basic and intermediate raw materials. Typically, we purchase major raw materials and energy through long-term contracts with multiple suppliers. Certain important raw materials are supplied by a few major suppliers. We expect the markets for our raw materials to remain balanced, though pricing may be volatile given the current state of the global economy. Energy is available as required, but pricing is subject to market fluctuations. Where practical, we seek to manage commodity price fluctuations through the use of futures contracts and other hedging instruments.

Our proprietary technology is used in various global locations to produce the catalysts used in various intermediate steps in the production of glyphosate. We believe capacity is sufficient for our requirements and adequate safety stock inventory reduces the risks associated with production outages. We manufacture and purchase disodium iminodiacetic acid, a key ingredient in the production of glyphosate, and purchase chlorine from limited major suppliers. We manufacture almost all of our global supply of elemental phosphorus, a key raw material for the production of *Roundup* herbicides. We have multiple mineral rights which, subject to obtaining and maintaining appropriate mining permits, we believe will provide a long term supply of phosphate ore to meet our needs into the foreseeable future. As part of the ongoing course of operating our phosphorus production, we are required to periodically obtain permits for new mining operations.

RESEARCH AND DEVELOPMENT

Monsanto's expenses for research and development were $1,607 million in fiscal 2017, $1,512 million in fiscal 2016 and $1,580 million in fiscal 2015.

SEASONALITY AND WORKING CAPITAL; BACKLOG

For information on seasonality and working capital and backlog practices, see information in Item 7 — MD&A — Financial Condition, Liquidity and Capital Resources, which is incorporated herein by reference.

EMPLOYEE RELATIONS

As of Aug. 31, 2017, we employed approximately 20,500 regular employees worldwide and approximately 2,800 temporary employees. The number of temporary employees varies greatly during the year because of the seasonal nature of our business. We believe that relations between Monsanto and its employees are satisfactory. For additional information on employee relations, see Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring.

CUSTOMERS

In 2017, our four largest U.S. distributors and their affiliates represented, in the aggregate, 24 percent of our worldwide net sales and 43 percent of our U.S. net sales. During 2017, one major U.S. distributor and its affiliates, WinField Solutions, LLC, represented 11 percent of the worldwide net sales for our Seeds and Genomics segment and 19 percent of the U.S. net sales for our Seeds and Genomics segment.

INTERNATIONAL OPERATIONS

See Item 1A under the heading *''Our operations outside the United States are subject to special risks and restrictions, which could negatively affect our results of operations and profitability,''* and Item 8 — Financial Statements and Supplementary Data — Note 25 — Segment and Geographic Data, which are incorporated herein by reference. Approximately 44 percent of Monsanto's sales, including 41 percent of our Seeds and Genomics segment sales and 53 percent of our Agricultural Productivity segment sales, originated from our legal entities outside the United States during fiscal year 2017.

SEGMENT AND GEOGRAPHIC DATA

For information on segment and geographic data, see Item 8 — Financial Statements and Supplementary Data — Note 25 — Segment and Geographic Data, which is incorporated by reference herein.

ITEM 1A. RISK FACTORS

RISKS RELATED TO OUR BUSINESS

Competition in seeds and traits and agricultural chemicals has significantly affected, and will continue to affect, our sales.

Many companies engage in research and development of plant biotechnology and breeding and agricultural chemicals, and speed in getting a new product to market can be a significant competitive advantage. Our competitors' success could render our existing products less competitive, resulting in reduced sales compared to our expectations or past results. We expect to see increasing competition from agricultural biotechnology firms and from major agrichemical and seed companies. We also expect to face continued competition for our *Roundup* herbicides and selective herbicides product lines, which could be influenced by trade and industrial policies of foreign countries. The extent to which we can realize cash and gross profit from our business will depend on our ability to: control manufacturing and marketing costs without adversely affecting sales; predict and respond effectively to competitor products, pricing and marketing; provide marketing programs meeting the needs of our customers and of the farmers who are our end users; maintain an efficient distribution system; and develop new products and services with features attractive to our end users.

Efforts to protect our intellectual property rights and to defend claims against us can increase our costs and will not always succeed; any failures could adversely affect sales and profitability or restrict our ability to do business.

Intellectual property rights are crucial to our business, particularly our Seeds and Genomics segment. We endeavor to obtain and protect our intellectual property rights in jurisdictions in which our products are produced or used and in jurisdictions into which our products are imported. Different nations may provide limited rights and inconsistent durations of protection for our products. We may be unable to obtain protection for our intellectual property in key jurisdictions. Even if protection is obtained, competitors, farmers, or others in the chain of commerce may raise legal challenges to our rights or illegally infringe on our rights, including through means that may be difficult to prevent or detect. For example, the practice by some farmers of saving seeds from non-hybrid crops (such as soybeans, canola and cotton) containing our biotechnology traits has prevented and may continue to prevent us from realizing the full value of our intellectual property, particularly outside the United States. In addition, because of the rapid pace of technological change, and the confidentiality of patent applications in some jurisdictions, competitors may be issued patents from applications that were unknown to us prior to issuance. These patents could reduce the value of our commercial or pipeline products or, to the extent they cover key technologies on which we have unknowingly relied, require that we seek to obtain licenses or cease using the technology, no matter how valuable to our business. We cannot assure we would be able to obtain such a license on acceptable terms. The extent to which we succeed or fail in our efforts to protect our intellectual property will affect our costs, sales and other results of operations.

We are subject to extensive regulation affecting our seed biotechnology and agricultural products and our research and manufacturing processes, which affects our sales and profitability.

Regulatory and legislative requirements affect the development, manufacture and distribution of our products, including the testing and planting of seeds containing our biotechnology traits and the import of crops grown from those seeds, and non-compliance can harm our sales and profitability. Obtaining and maintaining permits for mining and production and obtaining and maintaining testing, planting and import approvals for seeds or biotechnology traits can be time-consuming and costly, with no guarantee of success. In addition, regulatory and legislative requirements may change over time which can also affect our sales and profitability. The failure to receive necessary permits or approvals could have near- and long-term effects on our ability to produce and sell some current and future products. Planting approvals may also include significant regulatory requirements that can limit our sales. Sales of our traits can be affected in jurisdictions where planting has been approved if we have not received approval for the import of crops containing such biotechnology traits by key import markets. Sales of our traits without having approval for the import of crops containing such biotechnology traits by an import market could lead to disruption of that market, and we may face claims of potential liability. Concern about unintended but unavoidable trace amounts (sometimes called ''low-level presence'') of commercial biotechnology traits in conventional (non-biotechnology) seed, or in the grain or products produced from conventional or organic crops, among other things, could lead to export disruption and increased regulation or legislation, which may include: liability transfer mechanisms that may include financial protection insurance; possible restrictions or moratoria on testing, planting or use of biotechnology traits; and requirements for labeling and traceability, which requirements may cause food processors and food companies to avoid biotechnology and select non-biotechnology crop sources and can affect farmer seed purchase decisions and the sale of our products. Further, the detection of the presence of biotech traits not approved in the country of planting (sometimes called ''adventitious presence'') may affect seed availability or result in export disruption and compliance actions, such as crop destruction or product recalls. Legislation encouraging or discouraging the planting of specific crops can also harm our sales. In addition, concern and claims that increased use of glyphosate-based herbicides or biotechnology traits increases the potential for the development of glyphosate-resistant weeds or pests resistant to our traits could result in restrictions on the use of glyphosate-based herbicides or seeds containing our traits or otherwise reduce our sales.

The degree of public understanding and acceptance or perceived public acceptance of our biotechnology and other agricultural products can affect our sales and results of operations by affecting planting approvals, regulatory requirements and customer purchase decisions.

Although all of our products go through rigorous testing, some opponents of our technology actively raise public concern about the potential for adverse effects of our products on human or animal health, other plants and the environment. The potential for low-level or adventitious presence of commercial biotechnology traits in conventional seed, or in the grain or products produced from conventional or organic crops, is another factor that can affect general public acceptance of these traits. Public concern can affect the timing of, and whether we are able to obtain, government approvals for our products. Even after approvals are granted, public concern may lead to increased regulation or legislation or litigation against government regulators concerning prior regulatory approvals, which could affect our sales and results of operations, including by affecting planting approvals, and which may adversely affect sales of our products to farmers, including due to their concerns about available markets for the sale of crops or other products including those derived from biotechnology. In addition, opponents of agricultural biotechnology have attacked farmers' fields and facilities used by agricultural biotechnology companies, and may launch future attacks against farmers' fields and our field testing sites and research, production, or other facilities, which could affect our sales and our costs.

The successful development and commercialization of our pipeline products will be necessary for our growth.

We use advanced breeding technologies to produce hybrids and varieties with superior performance in farmers' fields, and we use biotechnology to introduce traits that enhance specific characteristics of our crops. We use advanced analytics, software tools, mobile communications and new planting and monitoring equipment to provide agronomic recommendations to growers. We also research biological products to protect farmers' crops from pests and diseases and enhance plant productivity and fertility, and we research chemical products to protect against crop pests. There are a number of reasons why new product concepts in these areas may be abandoned, including greater than anticipated development costs, technical difficulties, regulatory obstacles, competition, inability to prove the original concept, lack of demand and the need to divert focus, from time to time, to other initiatives with perceived opportunities for better returns. The processes of breeding, biotechnology trait discovery and development and trait integration are lengthy, and a very small percentage of the genes and germplasm we test is selected for commercialization. The length of time and the risk associated with the breeding and biotech pipelines are interlinked because both are required as a package for commercial success in markets where biotech traits are approved for growers. In countries where biotech traits are not approved for widespread use, our sales depend on our germplasm. Commercial success frequently depends on being the first company to the market, and many of our competitors are also making considerable investments in similar new biotechnology products, improved germplasm products, biological and chemical products and agronomic recommendation products. Consequently, if we are not able to fund extensive research and development activities and deliver new products to the markets we serve on a timely basis, our growth and operations will be harmed.

Adverse outcomes in legal proceedings could subject us to substantial damages and adversely affect our results of operations and profitability.

From time to time, we have been involved in major lawsuits concerning intellectual property, biotechnology, torts, contracts, antitrust allegations and other matters, as well as governmental inquiries and investigations. Pending and future lawsuits and governmental inquiries and investigations may have outcomes that may be significant to our results of operations in the period recognized or limit our ability to engage in our business activities. While we have insurance related to our business operations, it may not apply to or fully cover any liabilities we incur as a result of these lawsuits. In addition, pursuant to the Separation Agreement, we are required to indemnify Pharmacia for certain liabilities that are primarily related to Pharmacia's former chemical and agricultural businesses. We have recorded reserves for potential liabilities where we believe the liability to be probable and reasonably estimable. However, our actual costs may be materially different from this estimate. The degree to which we may ultimately be responsible for the particular matters reflected in the reserve is uncertain.

Our operations outside the United States are subject to special risks and restrictions, which could negatively affect our results of operations and profitability.

We engage in manufacturing, seed production, research and development and sales in many parts of the world. Although we have operations in virtually every region, our sales outside the United States in fiscal year 2017 were principally to customers in Brazil, Argentina, Canada and Mexico. Accordingly, developments in those parts of the world generally have a more significant effect on our operations than developments in other places. Our operations outside the United States are subject to special risks and restrictions, including: fluctuations in currency values and foreign-currency exchange rates; exchange control regulations; changes in local political or economic conditions; governmental pricing directives; import and trade restrictions; import or export licensing requirements and trade policy; restrictions on the ability to repatriate funds; and other potentially detrimental domestic and foreign governmental practices or policies affecting U.S. companies doing business abroad. Acts of terror or war may impair our ability to operate in particular countries or regions, and may impede the flow of goods and services between countries. Customers in weakened economies may be unable to purchase our products, or it could become more expensive for them to purchase imported products in their local currency or sell their commodity at prevailing international prices, and we may be unable to collect receivables from such customers. Further, changes in exchange rates may affect our net income, the book value of our assets outside the United States and our shareowners' equity.

We may pursue transactions that have risks and uncertainties that could adversely affect our results of operations and financial condition.

We have completed acquisitions, investments and other transactions and may pursue additional transactions. These transactions involve risks and uncertainties. We must fit them into our long-term growth strategies to generate sufficient value to justify their cost. These transactions also present other challenges, including geographical coordination, personnel integration and retention of key management personnel, systems integration and the reconciliation of corporate cultures. Those operations could divert management's attention from our business or cause a temporary interruption of or loss of momentum in our business and the loss of key personnel. These transactions may also cause us to assume liabilities, such as ongoing lawsuits, and may subject us to litigation. In addition, we may incur debt in the future to fund potential acquisitions or investments, or for other purposes. If we incur additional debt, it may increase our leverage and cost of borrowing and potentially lower our credit ratings.

Fluctuations in commodity prices can increase our costs and decrease our sales.

We contract production with multiple growers at fair value and retain the seed in inventory until it is sold. These purchases constitute a significant portion of the manufacturing costs for our seeds. Additionally, our chemical manufacturing operations use chemical intermediates and energy, which are subject to increases in price as the costs of oil and natural gas increase. Accordingly, increases in commodity prices may negatively affect our cost of goods sold or cause us to increase seed or chemical prices, which could adversely affect our sales. Where practical, we use hedging strategies and raw material supply agreements that contain terms designed to mitigate the risk of short-term changes in commodity prices. However, we are unable to avoid the risk of medium- and long-term increases. Farmers' incomes are also affected by commodity prices; as a result, fluctuations in commodity prices could have an impact on farmers' purchasing decisions and negatively affect their ability and decisions to purchase our seed and chemical products.

Compliance with quality controls and regulations affecting our manufacturing may be costly, and failure to comply may result in decreased sales, penalties and remediation obligations.

Because we use hazardous and other regulated materials in our manufacturing processes and engage in mining operations, we are subject to operational risks, including the potential for unintended environmental contamination, which could lead to potential personal injury claims, remediation expenses and penalties. Should a catastrophic event occur at any of our facilities, we could face significant reconstruction or remediation costs, penalties, third party liabilities and loss of production capacity, which could affect our sales. In addition, lapses in quality or other manufacturing controls could affect our sales and result in claims for defective products.

Our ability to match our production to the level of product demanded by farmers or our licensed customers has a significant effect on our sales, costs and growth potential.

Farmers' decisions are affected by market, economic and weather conditions that are not known in advance. Failure to provide distributors with enough inventories of our products will reduce our current sales. However, product inventory levels at our distributors may reduce sales in future periods, as those distributor inventories are worked down. In addition, inadequate liquidity of distributors could affect distributors' abilities to pay for our products and, therefore, affect our sales or our ability to collect on our receivables. Global glyphosate producers have the capacity to supply the market, but global dynamics including demand, environmental regulation compliance and raw material availability can cause fluctuations in the supply and the price of generic products. We expect the fluctuation in global production will impact the selling price and margin of *Roundup* brands and our third-party sourcing business. We depend on the availability of certain key raw materials used in our glyphosate production from single or limited major suppliers. If a major disruption in key raw materials were to occur, it could have a significant effect on our production, sales and costs.

Current levels of indebtedness, seasonal working capital needs and certain restrictions in the Merger Agreement may reduce our financial flexibility and the amount of funds available for other business purposes and may adversely affect our financial condition.

Our current level of indebtedness and related debt covenants, seasonal working capital needs and certain restrictions in the Merger Agreement could cause adverse effects, including: reducing funds available; limiting access to short- and long-term debt financing; increasing the cost of short- and long-term debt financing; weakening our short- and long-term credit ratings; and creating more restrictive financial covenants that limit financial and operating flexibility. The Merger Agreement contains certain restrictions on our ability to incur additional indebtedness and take other actions, which could also limit or increase the cost of the short- and long-term financing options available. In addition, we regularly extend credit to our customers in certain areas of the world to enable them to acquire crop production products and seeds at the beginning of their growing seasons. Due to these credit practices as well as the seasonality of our sales and costs, we may need to issue short-term debt at certain times of the year to fund cash flow requirements. Levels of short-term debt may be greater to the extent that we are unable to collect customer receivables when due.

Our results of operations and financial condition may be significantly affected by disruptions caused by weather, natural disasters, accidents and security breaches, including cybersecurity incidents.

Weather and field conditions can adversely affect the timing of crop planting, acreage planted, crop yields and commodity prices. In turn, seed production volumes, quality and cost may also be adversely affected which could impact our sales and profitability.

Natural disasters or industrial accidents could also affect our facilities, or those of our major suppliers or major customers, which could affect our costs and our ability to meet supply requirements. One of our major U.S. glyphosate manufacturing facilities is located in Luling, Louisiana, which is an area subject to hurricanes. In addition, several of our key raw material and utility suppliers have production assets in the U.S. Gulf Coast region and are also susceptible to damage risk from hurricanes. Hawaii and Puerto Rico, which are also subject to hurricanes, are major seeds and traits locations for our pipeline products. Security breaches and disruptions to our information technology systems could seriously harm our operations. We utilize and critically rely upon information technology systems in all aspects of our business, including increasingly large amounts of data to support our products and advance our research and development pipeline. We have experienced cybersecurity attacks and IT system outages that have not had a material impact on our financial results, but it is not possible to predict the impact of future incidents. Failure to effectively prevent, detect and recover from the increasing number and sophistication of information security threats could result in theft, misuse, modification and destruction of information, including trade secrets and confidential business information, and cause business disruptions, delays in research and development, reputational damage, and third-party claims, which could significantly affect our results of operations and financial condition.

RISKS RELATED TO THE MERGER

The pendency of the Merger with Bayer could adversely affect our business, financial results and/or operations.

The pendency of the Merger could cause disruptions and create uncertainty surrounding our business. These uncertainties may impair our ability to attract, retain and motivate key personnel until the transaction is consummated, and could cause suppliers, customers and other counterparties to change existing business relationships. Changes to existing business relationships, including termination or modification, could negatively affect our revenues, earnings and cash flow, as well as the market price of our common stock.

We are also subject to restrictions on the conduct of our business prior to the consummation of the transaction as provided in the Merger Agreement, including, among other things, restrictions on our ability to acquire other businesses and assets, sell, transfer or license our assets, make investments, enter into certain contracts, repurchase or issue securities, pay dividends in excess of certain thresholds, make capital expenditures, undertake certain licenses or other transactions relating to intellectual property, amend our organizational documents and incur indebtedness. These restrictions could prevent or delay the pursuit of strategic corporate or business opportunities, result in our inability to respond effectively and/or timely to competitive pressures, industry developments, developments relating to our customers and suppliers, and future opportunities, and may as a result or otherwise have a significant negative impact on our business, results of operations and financial condition.

In addition, management and financial resources have been diverted and will continue to be diverted towards the completion of the Merger. The company has incurred, and expects to incur, significant costs, expenses and fees for professional services and other transaction costs in connection with the transaction. These costs could adversely affect the financial condition and results of operation of the company prior to the consummation of the transaction.

We may not complete the Merger with Bayer within the time frame we anticipate or at all, which could have an adverse effect on our business, financial results and/or operations.

There can be no assurance that the Merger with Bayer will occur. Completion of the Merger is subject to a number of closing conditions, including receipt of required regulatory approvals. We can provide no assurance that all required approvals will be obtained or that all closing conditions will be satisfied, and, if all required approvals are obtained and the closing conditions are satisfied, we can provide no assurance as to the terms, conditions and timing of such approvals or the timing of the completion of the Merger.

If the transaction is not consummated within the expected time frame or at all, we may be subject to a number of material risks. The price of our common stock may decline to the extent that current market prices reflect a market assumption that the Merger will be completed. In addition, some costs related to the Merger must be paid whether or not the Merger is completed, and we have incurred, and will continue to incur, significant costs, expenses and fees for professional services and other transaction costs in connection with the pending Merger, as well as the direction of management resources towards the Merger, for which we will have received little or no benefit if the closing of the Merger does not occur. Many of the expenses, fees and costs will be payable by us even if the Merger is not completed and may relate to activities that we would not have undertaken other than in connection with the Merger. We may also experience negative reactions from our shareowners and other investors, employees, suppliers, customers, distributors, licensors and licensees. If the Merger Agreement is not consummated for any reason, there can be no assurance that any other transaction acceptable to us will be offered or that our business, prospects or results of operations will not be adversely affected.

In addition, if the Merger is not completed, our Board of Directors may review and consider various alternatives available to us, including, among others, continuing as a public company with no material changes to our business or capital structure, seeking an acquisition or attempting to implement another transaction that is similar to the Merger. These alternative transactions may involve various additional risks to our business, including, among others, distraction of our management team and associated expenses as described above in connection with the pending Merger, and risks and uncertainties related to our ability to consummate any such alternative transaction and other variables which may adversely affect our operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

At Aug. 31, 2017, there were no unresolved comments from the staff of the SEC related to our periodic or current reports under the Exchange Act.

ITEM 2. PROPERTIES

We and our subsidiaries own or lease manufacturing facilities, laboratories, seed production and other agricultural facilities, office space, warehouses and other land parcels in North America, South America, Europe, Asia, Australia and Africa. Our general offices, which we own, are located in St. Louis County, Missouri. These office and research facilities are principal properties.

Additional principal properties used by the Seeds and Genomics segment include seed production and conditioning plants at Boone, Grinnell and Williamsburg, Iowa; Constantine, Michigan; Enkhuizen, Netherlands; Illiopolis, Waterman and Farmer City, Illinois; Remington, Indiana; Kearney and Waco, Nebraska; Oxnard, California; Peyrehorade and Trèbes, France; Rojas, Argentina; Sinesti, Romania; Nagyigmand, Hungary; Uberlândia and Petrolina, Brazil; Thobontle, South Africa; and Hyderabad, India, and research sites at Ankeny, Iowa; Maui, Molokai and Oahu, Hawaii; and Woodland, California. We own all of these properties, except some sites in Hawaii. The Seeds and Genomics segment also uses seed foundation and production facilities, breeding facilities, and genomics and other research laboratories at various other locations worldwide.

The Agricultural Productivity segment has principal chemicals manufacturing facilities at Antwerp, Belgium; Camaçari, Brazil; Luling, Louisiana; Muscatine, Iowa; São José dos Campos, Brazil; Soda Springs, Idaho; Zárate, Argentina; and Rock Springs, Wyoming. We own all of these properties, except the one in Antwerp, Belgium, which is subject to a lease for the land underlying the facility.

We believe that our principal properties are suitable and adequate for their use. Our facilities generally have sufficient capacity for our existing needs and expected near-term growth. Expansion projects are undertaken as necessary to meet future needs. Use of these facilities may vary with seasonal, economic and other business conditions, but none of the principal properties is substantially idle. In certain instances, we have leased portions of sites not required for current operations to third parties.

ITEM 3. LEGAL PROCEEDINGS

We are involved in various legal proceedings that arise in the ordinary course of our business, as well as proceedings that we have considered to be material under SEC regulations. These include proceedings to which we are party in our own name and proceedings to which our former parent, Pharmacia LLC, or its former subsidiary, Solutia Inc., is a party but that we manage and for which we are responsible pursuant to certain indemnification agreements. Information regarding certain material proceedings and the possible effects on our business of proceedings we are defending is disclosed in Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies — under the subheading ''Environmental and Litigation Liabilities — Litigation'' and is incorporated by reference herein.

ITEM 4. MINE SAFETY DISCLOSURES

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this report.

Executive Officers

See Part III — Item 10 of this Report on Form 10-K for information about our Executive Officers.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

Monsanto's common stock is listed on the New York Stock Exchange (''NYSE''), under the symbol MON. The number of shareowners of record as of Oct. 25, 2017, was 25,606.

The following table sets forth dividend declarations, as well as the high and low intra-day prices for Monsanto's common stock based on NYSE trading, for the quarters in fiscal years 2017 and 2016 as indicated.

Dividends per Share	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Fiscal Year
2017	**$ —**	**$ 1.08[1]**	**$ —**	**$ 1.08[1]**	**$ 2.16**
2016	$ —	$ 1.08[1]	$ —	$ 1.08[2]	$ 2.16

Common Stock Price		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Fiscal Year
2017	**High**	**$109.50**	**$113.96**	**$117.47**	**$118.97**	**$118.97**
	Low	**97.35**	**102.70**	**111.92**	**115.98**	**97.35**
2016	High	$ 97.62	$100.56	$113.22	$114.26	$114.26
	Low	81.22	84.71	83.73	98.92	81.22

[1] Monsanto's board of directors declared four dividends in 2017, $0.54 per share on Dec. 5, 2016, $0.54 per share on Jan. 27, 2017, $0.54 per share on June 6, 2017, and $0.54 per share on Aug. 11, 2017.

[2] Monsanto's board of directors declared four dividends in 2016, $0.54 per share on Dec. 7, 2015, $0.54 per share on Jan. 29, 2016, $0.54 per share on June 9, 2016, and $0.54 per share on Aug. 12, 2016.

Issuer Purchases of Equity Securities

The following table summarizes purchases of equity securities during the fourth quarter of fiscal year 2017 by Monsanto and affiliated purchasers, pursuant to SEC rules.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share[1]	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
June 2017:				
June 1, 2017, through June 30, 2017	**30[2]**	**$118.37**	**—**	**$ —**
July 2017:				
July 1, 2017, through July 31, 2017	**30[2]**	**$116.83**	**—**	**$ —**
August 2017:				
Aug. 1, 2017, through Aug. 31, 2017	**30[2]**	**$117.00**	**—**	**$ —**
Total	**90**	**$117.47**	**—**	**$ —**

[1] The average price paid per share is calculated on a trade date basis and excludes commission

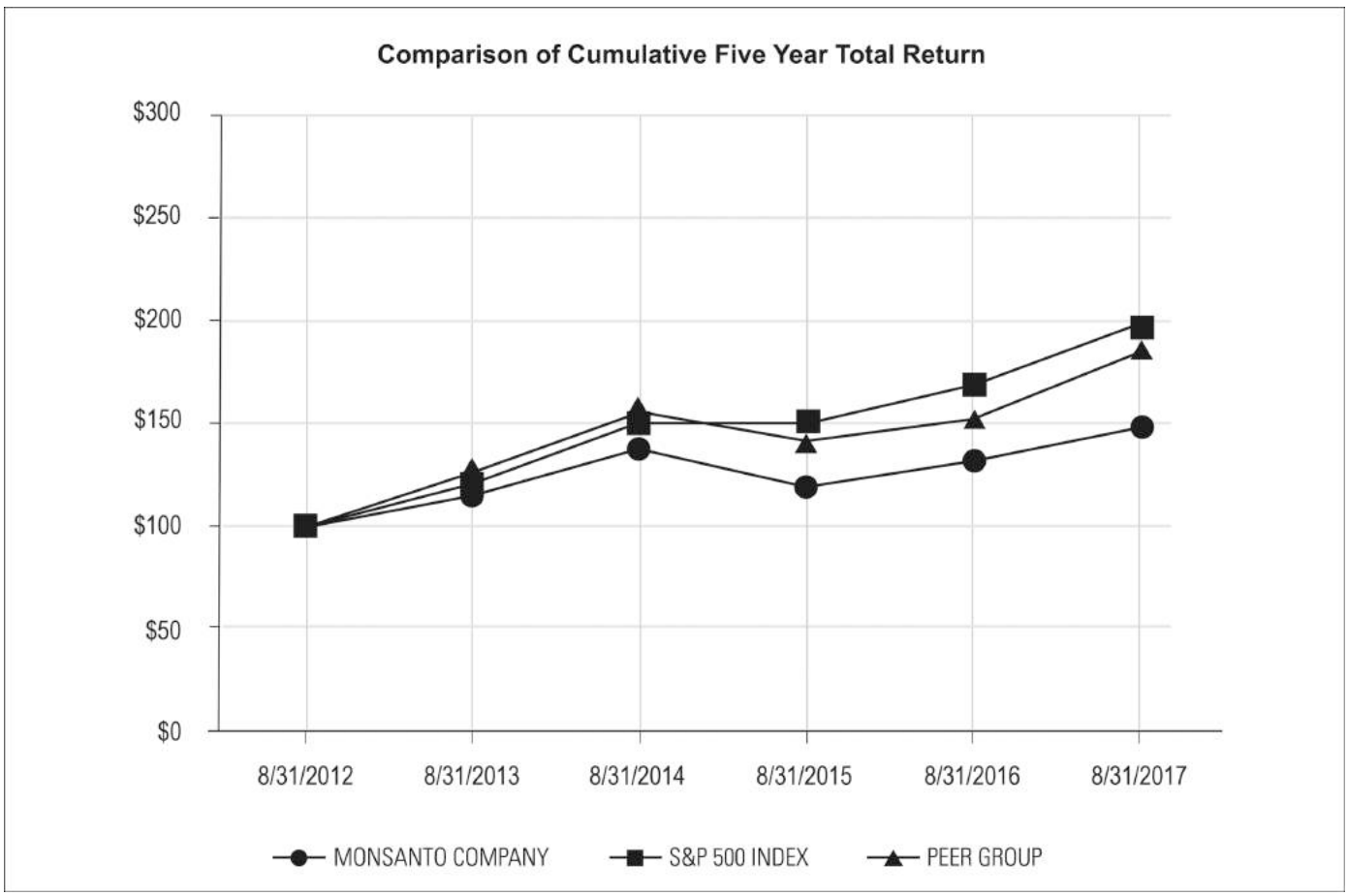
[2] Represents 30 shares withheld for taxes on restricted stock.

In June 2014, the company announced a two-year repurchase authorization of up to $10 billion of the company's common stock. Repurchases under the authorization commenced on July 1, 2014. The authorization expired on June 24, 2016. There were no other publicly announced plans outstanding as of Aug. 31, 2017. The Merger Agreement includes restrictions on repurchases of shares of the company's common stock by the company.

Stock Price Performance Graph

Stock Price Performance Graph The graph below compares the performance of Monsanto's common stock with the performance of the Standard & Poor's 500 Stock Index (a broad-based market index) and a peer group index over a 60-month period extending through the end of the 2017 fiscal year. The graph assumes that $100 was invested on Sept. 1, 2012, in our common stock, in the Standard & Poor's 500 Stock Index and the peer group index, and that all dividends were reinvested.

Because we are involved both in the agricultural products business and in the seeds and genomics business, no published peer group accurately mirrors our portfolio of businesses. Accordingly, we created a peer group index that includes Bayer AG ADR, Dow Chemical Company[1], DuPont (E.I.) de Nemours and Company[1], BASF AG and Syngenta AG[2]. The Standard & Poor's 500 Stock Index and the peer group index are included for comparative purposes only. They do not necessarily reflect management's opinion that such indices are an appropriate measure of the relative performance of the stock involved, and they are not intended to forecast or be indicative of possible future performance of our common stock.



	8/31/12	8/31/13	8/31/14	8/31/15	8/31/16	8/31/17
Monsanto Company	$100	$114.11	$136.96	$117.66	$131.25	$147.29
S&P 500 Index	$100	$118.70	$148.67	$149.38	$168.13	$195.43
Peer Group	$100	$126.81	$155.68	$140.68	$151.08	$184.68

In accordance with SEC rules, the information contained in Stock Price Performance Graph shall not be deemed to be ''soliciting material,'' or to be ''filed'' with the SEC or subject to the SEC's Regulation 14A, or subject to the liabilities of Section 18 of the Exchange Act, except to the extent that Monsanto specifically requests that the information be treated as soliciting material or specifically incorporates it by reference into a document filed under the Securities Act or the Exchange Act.

[1] Dow Chemical Company and DuPont (E.I.) de Nemours and Company have merged their businesses effective Aug. 31, 2017.
[2] Syngenta AG was acquired by ChemChina on May 31, 2017, and the graph includes Syngenta's stock performance through that date.

ITEM 6. SELECTED FINANCIAL DATA

SELECTED FINANCIAL DATA

(Dollars in millions, except per share amounts and ratios)	Year Ended Aug. 31, 2017[4]	2016[5]	2015[6]	2014[7]	2013
Operating Results:					
Net Sales	**$14,640**	$13,502	$15,001	$15,855	$14,861
Income from Operations	**3,212**	2,375	3,523	4,075	3,570
Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest	**2,260**	1,296	2,297	2,749	2,514
Income on Discontinued Operations	**13**	17	28	13	11
Net Income Attributable to Monsanto Company	**2,260**	1,336	2,314	2,740	2,482
Basic Earnings per Share Attributable to Monsanto Company:					
Income from Continuing Operations	**$ 5.12**	$ 2.98	$ 4.79	$ 5.25	$ 4.63
Income on Discontinued Operations	**0.03**	0.04	0.06	0.03	0.02
Net Income Attributable to Monsanto Company	**5.15**	3.02	4.85	5.28	4.65
Diluted Earnings per Share Attributable to Monsanto Company:					
Income from Continuing Operations	**$ 5.06**	$ 2.95	$ 4.75	$ 5.19	$ 4.58
Income on Discontinued Operations	**0.03**	0.04	0.06	0.03	0.02
Net Income Attributable to Monsanto Company	**5.09**	2.99	4.81	5.22	4.60
Financial Position at End of Period:					
Total Assets[1]	**$21,333**	$19,736	$21,920	$21,918	$20,651
Working Capital[2]	**2,253**	1,428	5,448	4,563	5,741
Current Ratio[2]	**1.35:1**	1.21:1	2.05:1	1.89:1	2.32:1
Long-Term Debt[1]	**7,254**	7,453	8,429	7,465	2,048
Debt-to-Capital Ratio[3]	**56%**	67%	56%	49%	14%
Other Data:					
Dividends per Share	**$ 2.16**	$ 2.16	$ 2.01	$ 1.78	$ 1.56
Stock Price per Share:					
High	**$118.97**	$114.26	$126.00	$128.79	$109.33
Low	**$ 97.35**	$ 81.22	$ 89.34	$ 98.84	$ 82.70
End of Period	**$117.20**	$106.50	$ 97.65	$115.65	$ 97.89
Basic Shares Outstanding	**438.8**	442.7	476.9	519.3	533.7
Diluted Shares Outstanding	**443.8**	447.1	481.4	524.9	539.7

[1] Prior period balances have been updated to conform with current period presentation for the adoption of the accounting standard update ''Presentation of Debt Issuance Costs'' in fiscal year 2015.

[2] Working capital is total current assets less total current liabilities; current ratio represents total current assets divided by total current liabilities. The decrease in other current assets resulting from the adoption of ''Balance Sheet Classification of Deferred Taxes'' during the third quarter of fiscal year 2016 impacts the comparability of working capital and current ratio compared to the prior periods.

[3] Debt-to-capital ratio is the sum of short-term and long-term debt, divided by total Monsanto Company shareowners' equity, short-term and long-term debt.

[4] The following occurred in fiscal 2017:

- The company recorded $25 million of cost of goods sold expenses and a net reversal of $36 million of previously recognized restructuring charges within operating expenses related to the 2015 Restructuring Plan, with a combined corresponding income tax benefit of $1 million.
- The company recorded $33 million of selling, general and administrative expenses related to environmental and litigation matters, with a corresponding income tax benefit of $13 million.
- The company recorded $222 million of pending Bayer transaction related costs of which $37 million is recorded in other (income) expense, net and $185 million is recorded in pending Bayer transaction related costs within operating expenses, with a corresponding income tax benefit of $83 million.
- Due to losses generated in Argentina as well as uncertainties around the Argentina business, the company evaluated the recoverability of various items on the Statement of Consolidated Financial Position related to the Argentina business and determined an allowance against certain assets was necessary. This resulted in a translation gain recorded in other (income) expense, net of $43 million and a net charge against tax expense of $88 million.
- The company granted a licensee the right to certain corn licenses in Brazil which resulted in revenue of $227 million, with no corresponding income tax provision.
- The company divested its European-based silthiofam seed-treatment chemical business previously reported as part of the Agricultural Productivity segment resulting in a gain of $83 million within other (income) expense, net in the Statement of Consolidated Operations with a corresponding income tax provision of $8 million.

[5] The following occurred in fiscal 2016:

- The company recorded $67 million of cost of goods sold expenses and $297 million of restructuring charges related to the 2015 Restructuring Plan, with a combined corresponding income tax benefit of $101 million.
- The company recorded $270 million of selling, general and administrative expenses related to environmental and litigation settlements and a SEC settlement, with a combined corresponding income tax benefit of $103 million.
- The company recorded a net tax charge of $252 million due to losses generated in Argentina as well as uncertainties around the Argentina business. The company evaluated the recoverability of various items on the Statement of Consolidated Financial Position related to the Argentina business and determined an allowance against certain assets was necessary, which resulted in the net charge to tax expense.
- The company entered into agreements to license our alfalfa traits and technology to a third party, which resulted in upfront revenue of approximately $210 million accounted for as an exclusive perpetual license, with a corresponding income tax provision of $74 million.
- The company signed definitive agreements to sell certain manufacturing assets and contribute to a newly-formed joint venture certain intellectual property, real property and tangible assets related to the company's sorghum business resulting in a gain of $157 million recorded in other (income) expense, net, with a corresponding income tax provision of $47 million.

[6] The company recorded $101 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $167 million of selling, general and administrative expenses related to environmental and litigation settlements and a SEC settlement, and $393 million of restructuring expense, with a combined corresponding income tax benefit of $188 million. The company also recorded $274 million of net sales as a result of the sale of a perpetual license to intellectual property, with a corresponding income tax provision of $102 million.

[7] The company recorded $32 million of selling, general and administrative expenses related to legacy environmental settlements, with a corresponding income tax benefit of $12 million.

See Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations — for information regarding the factors that have affected or may affect the comparability of our business results.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

Background

Monsanto Company, along with its subsidiaries, is a leading global provider of agricultural products for farmers. Our seeds, biotechnology trait products, herbicides and digital agriculture products provide farmers with solutions that help improve productivity, reduce the costs of farming and produce better foods for consumers and better feed for animals.

We manage our business in two reporting segments: Seeds and Genomics and Agricultural Productivity. Through our Seeds and Genomics segment, we produce leading seed brands, including *DEKALB, Asgrow, Deltapine, Seminis* and *De Ruiter,* and we develop biotechnology traits that assist farmers in controlling insects and weeds and digital agriculture to assist farmers in decision making. We also provide other seed companies with genetic material and biotechnology traits for their seed brands. Through our Agricultural Productivity segment, we manufacture *Roundup* and *XtendiMax* Herbicide with *VaporGrip* Technology brand herbicides and other herbicides. Approximately 44 percent of our total company sales, including 41 percent of our Seeds and Genomics segment sales and 53 percent of our Agricultural Productivity segment sales, originated from our legal entities outside the United States during fiscal year 2017.

In the fourth quarter of 2008, we entered into an agreement to divest the animal agricultural products business (the Dairy business). This transaction was consummated on Oct. 1, 2008, and included a 10-year earn-out with potential annual payments being earned by Monsanto if certain revenue levels are exceeded. As a result, financial data for this business has been presented as discontinued operations as outlined below. The Dairy business was previously reported as part of the Agricultural Productivity segment.

This MD&A should be read in conjunction with Monsanto's consolidated financial statements and the accompanying notes. The notes to the consolidated financial statements referred to throughout this MD&A are included in Part II — Item 8 — Financial Statements and Supplementary Data — of this Report on Form 10-K. Unless otherwise indicated, ''earnings per share'' and ''per share'' mean diluted earnings per share. Unless otherwise noted, all amounts and analyses are based on continuing operations.

Non-GAAP Financial Measures

MD&A includes financial information prepared in accordance with generally accepted accounting principles in the United States of America (''GAAP''), as well as two other financial measures, EBIT and free cash flow, that are considered ''non-GAAP financial measures.'' Generally, a non-GAAP financial measure is a numerical measure of a company's financial performance, financial position or cash flows that exclude (or include) amounts that are included in (or excluded from) the most directly comparable measure calculated and presented in accordance with GAAP. The presentation of EBIT is intended to supplement investors' understanding of our operating performance. The presentation of free cash flow information is intended to supplement investors' understanding of our liquidity. Our EBIT and free cash flow measures may not be comparable to other companies' EBIT and free cash flow measures. Furthermore, these measures are not intended to replace net income (loss) attributable to Monsanto Company, cash flows, financial position or comprehensive income (loss), as determined in accordance with GAAP.

EBIT is defined as earnings (loss) before interest and taxes. Earnings (loss) is intended to mean net income (loss) attributable to Monsanto Company as presented in the Statements of Consolidated Operations under GAAP. EBIT is an operating performance measure for our two business segments. We believe that EBIT is useful to investors and management to demonstrate the operational profitability of our segments by excluding interest and taxes, which are generally accounted for across the entire company on a consolidated basis. EBIT is also one of the measures used by Monsanto management to determine resource allocations within the company. See Item 8 — Financial Statements and Supplementary Data — Note 25 — Segment and Geographic Data — for a reconciliation of EBIT to net income attributable to Monsanto Company for fiscal years 2017, 2016 and 2015.

We also provide information regarding free cash flow, an important liquidity measure for Monsanto. We define free cash flow as the total of net cash provided or required by operating activities less capital expenditures. Prior to the second quarter of fiscal year 2017, we defined free cash flow as the total of net cash provided or required by operating activities and net cash provided or required by investing activities. As this definition varies from other more common definitions of free cash flow, we determined it was appropriate to redefine free cash flow to conform to one of the more typical definitions beginning with the second quarter of fiscal year 2017. The prior period calculations of free cash flow have been restated to conform to the new presentation. Free cash flow does not represent the residual cash flow available for discretionary expenditures. We believe that free cash flow is useful to investors and management as a measure of the ability of our business to generate cash. Once business needs and obligations are met, this cash can be used to reinvest in the company for future growth or to return to our shareowners through dividend payments or share repurchases. Free cash flow is also used as one of the performance measures in determining incentive compensation. See the ''Financial Condition, Liquidity and Capital Resources — Cash Flow'' section of MD&A for a reconciliation of free cash flow to net cash provided by operating activities and capital expenditures on the Statements of Consolidated Cash Flows.

Executive Summary

Consolidated Operating Results — Net sales increased $1,138 million, or eight percent, in fiscal year 2017 compared to fiscal year 2016. The primary contributors to the increase were increases in soybean seed and traits, corn seed and traits, cotton seed and traits and agricultural productivity. The net sales increase in soybean seed and traits was primarily driven by increased *Intacta RR2 PRO* soybean penetration in Brazil and Argentina, increased *Roundup Ready 2 Xtend* soybean penetration in the United States, higher volumes in North America resulting from increased acres and favorable currency impacts in Brazil. The net sales increase in corn seed and traits was primarily driven by granting a licensee the right to certain corn licenses in Brazil, higher average net selling prices globally, and favorable currency impacts in Brazil. The net sales increase in cotton seed and traits was primarily driven by higher volume from increased planted acres in the United States and Australia, and share gains coupled with *Bollgard II XtendFlex* cotton penetration in the United States. The increase in agricultural productivity reflects increased volume of *Roundup* and other glyphosate-based herbicides globally, first time *XtendiMax* with *VaporGrip* Technology dicamba-based herbicide revenue and favorable currency impacts in Brazil. These increases were partially offset by lower average net selling price of *Roundup* and other glyphosate-based herbicides; decreased sales of other herbicides, primarily due to lower average selling prices and absence of sales from our European-based silthiofam seed-treatment chemical business (the ''Latitude'' business) sold during the second quarter of fiscal 2017; and a net sales decrease in all other crops seeds and traits primarily driven by the absence of revenue earned from license agreements of our alfalfa traits and technology in the third quarter of fiscal 2016.

Net income attributable to Monsanto Company in fiscal year 2017 was $5.09 per share, compared with $2.99 per share in fiscal year 2016.

Financial Condition, Liquidity and Capital Resources — In fiscal year 2017, working capital was $2,253 million compared with $1,428 million in fiscal year 2016, an increase of $825 million. For a detailed discussion of the factors affecting the working capital comparison, see the ''Working Capital and Financial Condition'' section of the ''Financial Condition, Liquidity and Capital Resources'' section in this MD&A.

In fiscal year 2017, net cash provided by operating activities was $3,226 million compared with $2,588 million in fiscal year 2016. Net cash required by investing activities was $1,107 million in fiscal year 2017 compared with $864 million in fiscal year 2016. Net cash required by financing activities was $1,966 million in fiscal year 2017 compared with $3,742 million in fiscal year 2016.

In fiscal year 2017, capital expenditures were $1,240 million compared with $923 million in fiscal year 2016, an increase of $317 million. Free cash flow was $1,986 million in fiscal year 2017 compared with $1,665 million in fiscal year 2016.

For a detailed discussion of the factors affecting the free cash flow comparison, see the ''Cash Flow'' section of the ''Financial Condition, Liquidity and Capital Resources'' section in this MD&A.

At Aug. 31, 2017, our debt-to-capital ratio was 56 percent compared with 67 percent at Aug. 31, 2016. The decrease was due to decreased commercial paper and Senior Notes at Aug. 31, 2017, compared to Aug. 31, 2016, coupled with an increase in shareowners' equity as a result of earnings, partially offset by dividends.

During the fiscal year ended Aug. 31, 2017, we divested our Latitude business previously reported as part of the Agricultural Productivity segment for approximately $140 million in cash, subject to customary working capital adjustments. Approximately $85 million, less the carrying amount of assets sold of approximately $2 million, was recognized within other (income) expense, net in the Statement of Consolidated Operations for the fiscal year ended Aug, 31, 2017. The recognition of the remaining $55 million is contingent on silthiofam re-registration within the European Union.

Effective June 15, 2016, we signed definitive agreements to sell certain manufacturing assets and contribute to a newly-formed joint venture certain intellectual property, real property and tangible assets related to the company's sorghum business. We received a cash payment of $110 million for the sale of certain manufacturing assets and a minority interest in the newly-formed joint venture, which combined resulted in a gain of approximately $157 million in fiscal 2016.

For a detailed discussion see the ''Capital Resources and Liquidity'' section of the ''Financial Condition, Liquidity and Capital Resources'' section of this MD&A.

Pending Merger with Bayer — On Sept. 14, 2016, we entered into an agreement and plan of merger (the ''Merger Agreement'') with Bayer Aktiengesellschaft, a German stock corporation (''Bayer''), and KWA Investment Co., a Delaware corporation and an indirect wholly owned subsidiary of Bayer (''Merger Sub''). The Merger Agreement provides, among other things and subject to the terms and conditions set forth therein, that Merger Sub will be merged with and into the company (the ''Merger''), with the company continuing as the surviving corporation and as a wholly owned subsidiary of Bayer. The Merger Agreement provides that each share of common stock of the company, par value $0.01 per share (other than certain shares specified in the Merger Agreement), outstanding immediately prior to the effective time of the Merger will be automatically converted into the right to receive $128.00 in cash, without interest. The obligation of the parties to complete the Merger is subject to customary closing conditions, including, among others, (i) the approval of the adoption of the Merger Agreement by the holders of a majority of the outstanding shares of common stock of the company entitled to vote, which was obtained at a special meeting of the company's shareowners held on Dec. 13, 2016, (ii) the expiration or earlier termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, (iii) the adoption of all approvals necessary for the completion of the Merger by the European Commission under Council Regulation

(EC) No. 139/2004, (iv) the receipt of certain other required foreign antitrust approvals, (v) completion of the review process by the Committee on Foreign Investment in the United States (''CFIUS''), (vi) no approvals related to CFIUS or antitrust laws having been made or obtained with the imposition of conditions that, together with Divestiture Actions (as defined in the Merger Agreement) undertaken, would reasonably be expected to have a Substantial Detriment (as defined in the Merger Agreement), (vii) no law, order or injunction having been enacted, issued, promulgated, enforced or entered after Sept. 14, 2016, by a court or other governmental entity of competent jurisdiction that is in effect that enjoins or otherwise prohibits the completion of the Merger, (viii) the accuracy of the representations and warranties contained in the Merger Agreement (subject to certain qualifications) and (ix) the performance by the parties of their respective obligations under the Merger Agreement in all material respects. Additional information about the Merger Agreement is set forth in our Current Report on Form 8-K filed with the SEC on Sept. 20, 2016.

Outlook — We plan to continue to innovate and improve our products in order to maintain market leadership and to support near-term performance. We are focused on applying innovation and technology to make our farmer customers more productive and profitable by protecting and improving yields and improving the ways they can produce food, fiber, feed and fuel. We use the tools of modern biology and technology in an effort to make seeds easier to grow, to allow farmers to do more with fewer resources and to help produce healthier foods for consumers. Our current research and development (''R&D'') strategy and commercial priorities are focused on bringing our farmer customers integrated yield solutions through our innovative platforms in plant breeding, biotechnology, chemistry, biologicals and data science. Our capabilities in biotechnology and breeding research are generating a rich product pipeline that is expected to drive long-term growth. The viability of our product pipeline depends in part on the speed of regulatory approvals globally, continued patent and legal rights to offer our products, general public acceptance of the products and the value they will deliver to the market.

Roundup herbicides remain the largest crop protection brand globally. Monsanto's crop protection business focus is to support Monsanto's *Roundup Ready* crops strategically through our weed management platform that delivers weed control offerings for farmers. We are focused on managing the costs associated with our agricultural chemistry business as that sector matures globally.

See the ''Outlook'' section of MD&A for a more detailed discussion of some of the opportunities and risks we have identified for our business. For additional information related to the outlook for Monsanto, see ''Caution Regarding Forward-Looking Statements'' above and Part I — Item 1A — Risk Factors of this Form 10-K.

New Accounting Pronouncements — See Item 8 — Financial Statements and Supplementary Data — Note 3 — New Accounting Standards — for information on recently issued accounting guidance.

RESULTS OF OPERATIONS

(Dollars in millions, except per share amounts)	Year Ended Aug. 31, 2017	2016	2015	Change 2017 vs. 2016	2016 vs. 2015
Net Sales	**$14,640**	$13,502	$15,001	**8%**	(10)%
Cost of goods sold	**6,703**	6,485	6,819	**3%**	(5)%
Gross Profit	**7,937**	7,017	8,182	**13%**	(14)%
Operating Expenses:					
Selling, general and administrative expenses	**2,969**	2,833	2,686	**5%**	5%
Research and development expenses	**1,607**	1,512	1,580	**6%**	(4)%
Restructuring charges	**(36)**	297	393	**NM**	(24)%
Pending Bayer transaction related costs	**185**	—	—	**NM**	NM
Total Operating Expenses	**4,725**	4,642	4,659	**2%**	— %
Income from Operations	**3,212**	2,375	3,523	**35%**	(33)%
Interest expense	**452**	436	433	**4%**	1%
Interest income	**(76)**	(74)	(105)	**3%**	(30)%
Other (income) expense, net	**(50)**	22	34	**NM**	(35)%
Income from Continuing Operations Before Income Taxes	**2,886**	1,991	3,161	**45%**	(37)%
Income tax provision	**626**	695	864	**(10)%**	(20)%
Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest	**2,260**	1,296	2,297	**74%**	(44)%
Discontinued Operations:					
Income from operations of discontinued businesses	**21**	27	45	**(22)%**	(40)%
Income tax provision	**8**	10	17	**(20)%**	(41)%
Income on Discontinued Operations	**13**	17	28	**(24)%**	(39)%
Net Income	**2,273**	1,313	2,325	**73%**	(44)%
Less: Net income (loss) attributable to noncontrolling interest	**13**	(23)	11	**NM**	NM
Net Income Attributable to Monsanto Company	**$ 2,260**	$ 1,336	$ 2,314	**69%**	(42)%
Diluted Earnings per Share Attributable to Monsanto Company:					
Income from continuing operations	**$ 5.06**	$ 2.95	$ 4.75	**72%**	(38)%
Income on discontinued operations	**0.03**	0.04	0.06	**(25)%**	(33)%
Net Income Attributable to Monsanto Company	**$ 5.09**	$ 2.99	$ 4.81	**70%**	(38)%

NM = Not Meaningful

Effective Tax Rate	**22%**	35%	27%
Comparison as a Percent of Net Sales:			
Cost of goods sold	**46%**	48%	45%
Gross profit	**54%**	52%	55%
Selling, general and administrative expenses	**20%**	21%	18%
Research and development expenses	**11%**	11%	11%
Total operating expenses	**32%**	34%	31%
Income from continuing operations before income taxes	**20%**	15%	21%
Net income attributable to Monsanto Company	**15%**	10%	15%

Overview of Financial Performance *(2017 compared with 2016)*

The following section discusses the significant components of our results of operations that affected the comparison of fiscal year 2017 with fiscal year 2016.

Net sales increased $1,138 million in fiscal year 2017 from fiscal year 2016. Our Seeds and Genomics segment sales increased $925 million, and our Agricultural Productivity segment sales increased $213 million. The following table presents the percentage changes in fiscal year 2017 worldwide sales by segment compared with sales in fiscal year 2016, including the effect that volume, price and currency had on these percentage changes:

	2017 Percentage Change in Net Sales vs. 2016			
	Volume	Price[1][2]	Currency	Total
Seeds and Genomics Segment	2%	6%	1%	9%
Agricultural Productivity Segment	11%	(6)%	1%	6%
Total Monsanto Company	4%	3%	1%	8%

[1] Seeds and Genomics segment included the impact of the company granting a licensee the right to certain corn licenses in Brazil which resulted in revenue of $227 million during fiscal year 2017.

[2] Seeds and Genomics segment included the impact of agreements entered into in the third quarter of fiscal year 2016 to license our alfalfa traits and technology to a third party, which resulted in upfront revenue of approximately $210 million accounted for as an exclusive perpetual license to intellectual property.

Cost of goods sold increased $218 million in fiscal year 2017 from fiscal year 2016. Our Seeds and Genomics segment cost of goods sold decreased $46 million, and our Agricultural Productivity segment cost of goods sold increased $264 million. Cost of goods sold as a percent of sales for the total company decreased two percentage points to 46 percent. The following table represents the percentage changes in fiscal year 2017 worldwide cost of goods sold by segment compared with cost of goods sold in fiscal year 2016, including the effect that volume, costs and currency had on these percentage changes:

	2017 Percentage Change in Cost of Goods Sold vs. 2016			
	Volume	Costs[1]	Currency	Total
Seeds and Genomics Segment	5%	(7)%	1%	(1)%
Agricultural Productivity Segment	12%	(4)%	2%	10%
Total Monsanto Company	8%	(6)%	1%	3%

[1] Seeds and Genomics segment includes $21 million and $66 million of restructuring charges related to certain asset impairment charges during fiscal years 2017 and 2016, respectively. Agricultural Productivity segment includes $4 million and $1 million of restructuring charges related to certain asset impairment charges during fiscal years 2017 and 2016, respectively. See Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring — for further information.

Gross profit increased $920 million. Total company gross profit as a percent of sales increased two percentage points to 54 percent in fiscal year 2017.

For a more detailed discussion of the factors affecting the net sales, cost of goods sold and gross profit comparisons, see the ''Seeds and Genomics Segment'' and the ''Agricultural Productivity Segment'' sections.

Operating expenses increased $83 million in fiscal year 2017 from fiscal year 2016.

Selling, general and administrative (''SG&A'') expenses increased $136 million, or five percent, primarily due to higher expense for employee incentive awards and increased commissions, marketing and other expense as a result of higher sales coupled with increased information technology expense. These increases were partially offset by decreased expense related to litigation and environmental matters primarily due to the absence of the polychlorinated biphenyls (''PCBs'') settlement of $280 million recorded in fiscal 2016 (see Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies — for further information), savings resulting from the 2015 Restructuring Plan and decreased bad debt expense.

R&D expenses increased $95 million, or six percent, primarily due to higher expense for employee incentive awards and increased spend related to The Climate Corporation. These increases were partially offset by savings resulting from the 2015 Restructuring Plan.

As a percent of sales, SG&A expense decreased one percentage point to 20 percent of sales, and R&D expense remained consistent at 11 percent of sales in fiscal year 2017 compared to fiscal year 2016.

Restructuring charges fluctuated $333 million to a reversal of expense of $36 million in fiscal 2017 compared to $297 million of expense in fiscal 2016 due to the timing of expense recognition related to workforce reductions, changes in the related estimates and decreased asset impairments. See discussion of the 2015 Restructuring Plan in Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring.

In fiscal 2017, costs related to the pending Merger with Bayer were $185 million.

Other (income) expense — net was $50 million of income in fiscal 2017, a $72 million change from expense of $22 million in fiscal 2016. The fluctuation was primarily due to lower foreign currency losses of approximately $102 million in fiscal 2017 compared to fiscal 2016 largely related to the Argentine peso in the prior year, a gain of approximately $83 million recorded for the sale of our Latitude business in the current year and a higher gain of approximately $38 million related to non-core asset sales in the current year compared to fiscal 2016. These items were partially offset by a loss of $37 million that was reclassified into earnings in the current year as a result of the discontinuance of an interest rate hedge and the absence of a gain recorded from the sale of sorghum manufacturing assets and contribution of sorghum intellectual property assets into a joint venture of $157 million.

Income tax provision for fiscal year 2017 was $626 million, a decrease of $69 million from fiscal year 2016 primarily as a result of an increase in foreign tax credits and higher discrete tax benefit in fiscal year 2017, partially offset by the increase in pretax income from continuing operations. The effective tax rate decreased to 22 percent, a decrease of 13 percentage points from fiscal year 2016. Fiscal year 2017 included several discrete

tax adjustments resulting in a tax benefit of $55 million, compared to a tax expense of $149 million in fiscal year 2016. The majority of the fiscal year 2017 benefit resulted from favorable adjustments to our tax returns filed during the year. Without the discrete items, our effective tax rate for fiscal year 2017 would have still been lower than the fiscal year 2016 rate, primarily due to foreign tax credits.

Overview of Financial Performance *(2016 compared with 2015)*

The following section discusses the significant components of our results of operations that affected the comparison of fiscal year 2016 with fiscal year 2015.

Net sales decreased $1,499 million in fiscal year 2016 from fiscal year 2015. Our Seeds and Genomics segment sales decreased $255 million, and our Agricultural Productivity segment sales decreased $1,244 million. The following table presents the percentage changes in fiscal year 2016 worldwide sales by segment compared with sales in fiscal year 2015, including the effect that volume, price and currency had on these percentage changes:

	2016 Percentage Change in Net Sales vs. 2015			
	Volume	Price[1][2]	Currency	Total
Seeds and Genomics Segment	1%	2%	(5)%	(2)%
Agricultural Productivity Segment	(9)%	(12)%	(5)%	(26)%
Total Monsanto Company	(3)%	(2)%	(5)%	(10)%

[1] Seeds and Genomics Segment includes the impact of agreements entered into in the third quarter of fiscal year 2016 to license our alfalfa traits and technology to a third party, which resulted in upfront revenue of approximately $210 million accounted for as an exclusive perpetual license to intellectual property.

[2] Agricultural Productivity Segment includes the impact of the agreement with Scotts entered into in the third quarter of fiscal year 2015, which resulted in $274 million of upfront revenue accounted for as a perpetual license to intellectual property.

Cost of goods sold decreased $334 million in fiscal year 2016 from fiscal year 2015. Our Seeds and Genomics segment cost of goods sold decreased $52 million, and our Agricultural Productivity segment cost of goods sold decreased $282 million. Cost of goods sold as a percent of sales for the total company increased three percentage points to 48 percent. The following table represents the percentage changes in fiscal year 2016 worldwide cost of goods sold by segment compared with cost of goods sold in fiscal year 2015, including the effect that volume, costs and currency had on these percentage changes:

	2016 Percentage Change in Cost of Goods Sold vs. 2015			
	Volume	Costs[1]	Currency	Total
Seeds and Genomics Segment	2%	2%	(5)%	(1)%
Agricultural Productivity Segment	(10)%	4%	(4)%	(10)%
Total Monsanto Company	(4)%	3%	(4)%	(5)%

[1] Seeds and Genomics Segment includes $66 million and $100 million of restructuring charges related to certain asset impairment charges for fiscal years 2016 and 2015, respectively. See Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring — for further information.

Gross profit decreased $1,165 million. Total company gross profit as a percent of net sales decreased three percentage points to 52 percent in fiscal year 2016.

For a more detailed discussion of the factors affecting the net sales, cost of goods sold and gross profit comparison, see the ''Seeds and Genomics Segment'' and the ''Agricultural Productivity Segment'' sections.

Operating expenses decreased $17 million in fiscal year 2016 from fiscal year 2015. SG&A expenses increased $147 million, or five percent, primarily due to the PCBs settlement of $280 million (see Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies — for further information) and higher point-of-delivery expenses in South America given the increase in *Intacta RR2 PRO*. These increases were offset by costs savings resulting from the 2015 Restructuring Plan, decreased employee incentive awards, currency impact, the absence of expenses related to prior year environmental and litigation settlements and the absence of prior year expense related to the SEC settlement discussed in Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies. R&D expenses decreased $68 million, or four percent, primarily due to currency impacts and realized impacts from the 2015 Restructuring Plan. As a percent of net sales, SG&A expense increased three percentage points to 21 percent of net sales, and R&D expense remained consistent at 11 percent of net sales in fiscal year 2016 compared to fiscal year 2015. Restructuring charges were $297 million in fiscal year 2016 compared to $393 million in fiscal year 2015 as a result of the 2015 Restructuring Plan discussed in Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring.

Interest income decreased $31 million in fiscal year 2016 from fiscal year 2015. The decrease is due to less cash invested in fiscal year 2016 compared to fiscal year 2015, primarily in South America.

Other (income) expense — net net decreased $12 million in fiscal year 2016 compared to fiscal year 2015. The decrease was primarily the result of foreign currency losses of $181 million largely related to the Argentine peso offset by a gain recorded from the sale of sorghum manufacturing assets and contribution of sorghum intellectual property assets into a joint venture of $157 million and non-core asset sales in the United States and Europe.

Income tax provision for fiscal year 2016 was $695 million, a decrease of $169 million from fiscal year 2015 primarily as a result of the decrease in pretax income from continuing operations in fiscal year 2016, offset by higher discrete tax expense. The effective tax rate increased to 35 percent, an increase of eight percentage points from fiscal year 2015. Fiscal year 2016 included several discrete tax adjustments resulting in a tax expense of $149 million, compared to a tax benefit of $62 million in fiscal year 2015. The majority of the fiscal year 2016 expense resulted from establishing a valuation allowance on Argentina's deferred tax assets. Due to losses generated in

Argentina in fiscal year 2016 as well as uncertainties around our Argentina business, we evaluated the recoverability of various items on our Statements of Consolidated Financial Position and determined a valuation allowance was necessary. This discrete tax expense was partially offset by favorable adjustments to our U.S. and ex-U.S. tax returns filed during fiscal year 2016. Without the discrete items, our effective tax rate for fiscal year 2016 would have been lower than the fiscal year 2015 rate, primarily due to foreign tax credits.

SEEDS AND GENOMICS SEGMENT

	Year Ended Aug. 31,			Change	
(Dollars in millions)	**2017**	2016	2015	**2017 vs. 2016**	2016 vs. 2015
Net Sales					
Corn seed and traits	**$ 6,270**	$5,825	$ 5,953	**8%**	(2)%
Soybean seed and traits	**2,662**	2,162	2,276	**23%**	(5)%
Cotton seed and traits	**615**	440	523	**40%**	(16)%
Vegetable seeds	**815**	801	816	**2%**	(2)%
All other crops seeds and traits	**551**	760	675	**(28)%**	13%
Total Net Sales	**$10,913**	$9,988	$10,243	**9%**	(2)%
Gross Profit					
Corn seed and traits	**$ 3,975**	$3,450	$ 3,557	**15%**	(3)%
Soybean seed and traits	**1,884**	1,399	1,510	**35%**	(7)%
Cotton seed and traits	**457**	282	408	**62%**	(31)%
Vegetable seeds	**435**	401	372	**8%**	8%
All other crops seeds and traits	**294**	542	430	**(46)%**	26%
Total Gross Profit	**$ 7,045**	$6,074	$ 6,277	**16%**	(3)%
EBIT[1]	**$ 2,910**	$2,292	$ 2,206	**27%**	4%

[1] EBIT is defined as earnings (loss) before interest and taxes. Interest and taxes are recorded on a total company basis. We do not record these items at the segment level. See Item 8 — Financial Statements and Supplementary Data — Note 25 — Segment and Geographic Data — and the ''Overview — Non-GAAP Financial Measures'' section of MD&A for further details.

Seeds and Genomics Financial Performance for Fiscal Year 2017

Net sales for the Seeds and Genomics segment increased $925 million in fiscal year 2017 compared to fiscal year 2016. The net sales increase of $500 million in soybean seed and traits was primarily driven by increased *Intacta RR2 PRO* soybean penetration in Brazil and Argentina, increased *Roundup Ready 2 Xtend* soybean penetration in the United States, higher volumes in North America resulting from increased acres and favorable currency impacts in Brazil. The net sales increase of $445 million in corn seed and traits was primarily driven by granting a licensee the right to certain corn licenses in Brazil, higher average net selling prices globally, and favorable currency impacts in Brazil. The net sales increase of $175 million in cotton seed and traits was primarily due to higher volume from increased planted acres in the United States and Australia, and share gains coupled with *Bollgard II XtendFlex* cotton penetration in the United States. These increases were partially offset by a net sales decrease of $209 million in all other crops seeds and traits driven by the absence of license agreements of our alfalfa traits and technology in fiscal 2016, which resulted in approximately $210 million of upfront revenue accounted for as an exclusive perpetual license to intellectual property.

Cost of goods sold in the Seeds and Genomics segment primarily represents field growing, plant processing and distribution costs. Cost of goods sold decreased $46 million, or one percent, to $3,868 million in fiscal year 2017 compared to $3,914 million in fiscal year 2016.

Gross profit increased $971 million, or 16 percent, to $7,045 million in fiscal year 2017 compared with $6,074 million in fiscal year 2016. Gross profit as a percent of net sales for this segment increased four percentage points to 65 percent in fiscal year 2017. The increase in gross profit was primarily due to corn seed and traits, soybean seed and traits and cotton seed and traits. Corn seed and traits gross profit increased primarily due to granting a licensee the right to certain corn licenses in Brazil, higher average net selling prices globally and higher production plans resulting in greater fixed cost absorption. Increased *Intacta RR2 PRO* soybean and *Roundup Ready 2 Xtend* soybean penetration and increased volume in soybean seed and traits as noted in the net sales discussion coupled with reduced *Roundup Ready 2 Xtend* soybean launch costs also attributed to the increase. Cotton seed and traits volume increased as noted in the sales discussion. In addition, favorable currency impacts in Brazil increased gross profit. These increases in gross profit were partially offset by the absence of a license agreement of our alfalfa traits and technology in the third quarter of fiscal 2016 within all other crops seeds and traits.

Seeds and Genomics Financial Performance for Fiscal Year 2016

Net sales for the Seeds and Genomics segment decreased $255 million in fiscal year 2016 compared to fiscal year 2015. The net sales decrease of $128 million in corn seed and traits was primarily driven by unfavorable currency impacts in Brazil, Mexico and Europe and decreased average net selling price. The

decreased average net selling price was primarily due to higher discounting to counter competitive offers in the United States, partially offset by germplasm and trait mix lift in Brazil. The currency and price impacts were partially offset by higher volumes due to increased acres in North and South America. The net sales decrease of $114 million in soybean seed and traits was primarily due to unfavorable currency impacts in Brazil and lower volumes in the United States resulting in part from the delay in *Roundup Ready 2 Xtend* approvals. The net sales decreases in soybean seed and traits were partially offset by an increased average net selling price in Brazil related to increased sales of *Intacta RR2 PRO*. The net sales decrease of $83 million in cotton seed and traits was primarily due to lower average net selling price in India as a result of new government pricing policies.

The net sales decreases were partially offset by an increase of $85 million in all other crops seeds and traits primarily driven by agreements entered into in the third quarter of fiscal year 2016 related to our alfalfa traits and technology, which resulted in approximately $210 million of upfront revenue accounted for as an exclusive perpetual license to intellectual property, partially offset by lower sales volumes of canola seed in Canada as a result of market conditions.

Cost of goods sold in the Seeds and Genomics segment primarily represents field growing, plant processing and distribution costs. Cost of goods sold decreased $52 million, or one percent, to $3,914 million in fiscal year 2016 compared to $3,966 million in fiscal year 2015.

Gross profit decreased $203 million, or three percent, to $6,074 million in fiscal year 2016 compared with $6,277 million in fiscal year 2015. Gross profit as a percent of net sales for this segment remained consistent at 61 percent in fiscal year 2016.

Gross profit for cotton seed and traits decreased $126 million, or 31 percent, compared to the 16 percent decrease in net sales for cotton seed and traits primarily due to the effect on margins from the decline of the India business as a result of new government regulations coupled with higher costs in the United States. Gross profit for soybean seed and traits decreased $111 million, or seven percent, compared to the five percent decrease in net sales primarily related to increased *Roundup Ready 2 Xtend* launch costs within the United States.

The gross profit decreases are partially offset by an increase of $112 million in all other crops seeds and traits primarily driven by the perpetual alfalfa license noted in the net sales discussion.

AGRICULTURAL PRODUCTIVITY SEGMENT

	Year Ended Aug. 31,			Change	
(Dollars in millions)	**2017**	2016	2015	**2017 vs. 2016**	2016 vs. 2015
Net Sales					
Agricultural Productivity	**$3,727**	$3,514	$4,758	**6%**	(26)%
Total Net Sales	**$3,727**	$3,514	$4,758	**6%**	(26)%
Gross Profit					
Agricultural Productivity	**$ 892**	$ 943	$1,905	**(5)%**	(50)%
Total Gross Profit	**$ 892**	$ 943	$1,905	**(5)%**	(50)%
EBIT[1]	**$ 353**	$ 116	$1,294	**NM**	(91)%

[1] EBIT is defined as earnings (loss) before interest and taxes. Interest and taxes are recorded on a total company basis. We do not record these items at the segment level. See Item 8 — Financial Statements and Supplementary Data — Note 25 — Segment and Geographic Data — and the ''Overview — Non-GAAP Financial Measures'' section of MD&A for further details.

Agricultural Productivity Financial Performance for Fiscal Year 2017

Net sales in our Agricultural Productivity segment increased $213 million, or six percent, in fiscal year 2017 compared to fiscal year 2016 primarily due to increased volume of *Roundup* and other glyphosate-based herbicides globally, first time *XtendiMax* with *VaporGrip* Technology dicamba-based herbicide revenue and favorable currency impact in Brazil. These increases were partially offset by lower average net selling price of *Roundup* and other glyphosate-based herbicides and decreased sales of other herbicides, primarily due to lower average selling prices and absence of sales from the Latitude business sold during the second quarter of fiscal 2017.

Cost of goods sold in the Agricultural Productivity segment primarily represents material, conversion and distribution costs. Cost of goods sold increased $264 million, or ten percent, in fiscal year 2017 to $2,835 million compared to $2,571 million in fiscal year 2016. Cost of goods sold increased as a result of higher sales volumes when compared to fiscal 2016 and currency impacts in Brazil. This is partially offset by *Roundup* and other glyphosate-based herbicides cost savings and lower dicamba-based herbicide project expenses when compared to fiscal 2016.

The net sales and cost of goods sold discussed above resulted in a $51 million decrease in gross profit in fiscal year 2017. Gross profit as a percent of net sales for the Agricultural Productivity segment decreased three percentage points to 24 percent in fiscal year 2017 compared to fiscal year 2016 primarily due to the lower average net selling price of *Roundup* and other glyphosate-based herbicides partially offset by lower dicamba-based herbicide project expenses.

EBIT in our Agricultural Productivity segment increased $237 million in fiscal year 2017 compared to fiscal year 2016, while gross profit decreased $51 million, or five percent, as noted above. The increase in EBIT is primarily due to the absence of the PCBs settlement of $280 million included in

selling, general and administrative expenses in fiscal 2016 (see Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies — for further information).

Agricultural Productivity Financial Performance for Fiscal Year 2016

Net sales in our Agricultural Productivity segment decreased $1,244 million, or 26 percent, in fiscal year 2016 primarily due to lower average net selling price of *Roundup* and other glyphosate-based herbicides due to the decline in acid prices and the absence of the Scotts license agreement that existed in the prior year. Additional drivers for the decline were lower volume in South America, the United States and our global supply business due to pressure from generic products and timing of shipments and unfavorable currency impact primarily in Brazil.

Cost of goods sold in the Agricultural Productivity segment primarily represents material, conversion and distribution costs. Cost of goods sold decreased $282 million, or ten percent, in fiscal year 2016 to $2,571 million compared to $2,853 million in fiscal year 2015. Cost of goods sold declined as a result of lower sales volumes and favorable currency impacts, offset in part by higher raw material prices and higher dicamba project expense when compared to fiscal year 2015.

The net sales and cost of goods sold discussed above resulted in a $962 million decrease in gross profit in fiscal year 2016. Gross profit as a percent of sales for the Agricultural Productivity segment decreased 13 percentage points to 27 percent in fiscal year 2016 primarily due to the absence of the Scotts license agreement that existed in the prior year, lower volumes and lower average net selling price as noted in the net sales discussion, increased costs of goods sold and currency impacts.

RESTRUCTURING

On Oct. 6, 2015, the company approved actions to realign resources to increase productivity, enhance competitiveness by delivering cost improvements and support long-term growth. On Jan. 5, 2016, the company approved additional actions which together with the Oct. 6, 2015, actions comprise the 2015 Restructuring Plan. Actions include streamlining and reprioritizing some commercial, enabling, supply chain and R&D efforts.

Cumulative pretax charges related to the 2015 Restructuring Plan are estimated to be $900 million to $965 million. Implementation of the 2015 Restructuring Plan is expected to be completed by the end of fiscal year 2018, and substantially all of the cash payments are expected to be made by the end of fiscal year 2018. These pretax charges are currently estimated to be comprised of the following categories: $325 million to $350 million in work force reductions, including severance and related benefits; $95 million to $115 million in facility closures / exit costs, including contract termination costs; $480 million to $500 million in asset impairments and write-offs related to property, plant and equipment, inventory and goodwill and other assets. These pretax charges are currently estimated to be incurred primarily by the Seeds and Genomics segment.

For the fiscal year ended Aug. 31, 2017, a pretax net reversal of restructuring charges of $11 million was recorded within the Statement of Consolidated Operations, of which $25 million of expense and net reversal of $36 million of previously recognized expense were included in cost of goods sold and restructuring charges, respectively. The reversal of previously recognized expense was due to changes in estimates related to work force reductions. For the fiscal year ended Aug. 31, 2016, pretax restructuring charges of $364 million were recorded within the Statement of Consolidated Operations, of which $67 million and $297 million were included in cost of goods sold and restructuring charges, respectively. For additional information on the 2015 Restructuring Plan, see Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

Working Capital and Financial Condition

	As of Aug. 31,	
(Dollars in millions, except current ratio)	**2017**	2016
Cash and Cash Equivalents[1]	**$1,856**	$1,676
Trade Receivables, Net[1]	**2,161**	1,926
Inventory, Net	**3,340**	3,241
Other Current Assets[1][2]	**1,294**	1,314
Total Current Assets	**$8,651**	$8,157
Short-Term Debt[1]	**$ 870**	$1,587
Accounts Payable[1]	**1,068**	1,006
Accrued Liabilities[1][3]	**4,460**	4,136
Total Current Liabilities	**$6,398**	$6,729
Working Capital[4]	**$2,253**	$1,428
Current Ratio[4]	**1.35:1**	1.21:1

(1) Includes restrictions as a result of our variable interest entities. See Item 8 — Financial Statements and Supplementary Data — Statements of Consolidated Financial Position and Note 8 — Variable Interest Entities and Investments — for more information.

(2) Includes short-term investments, miscellaneous receivables, assets held for sale and other current assets.

(3) Includes income taxes payable, accrued compensation and benefits, accrued marketing programs, deferred revenues, grower production accruals, dividends payable, customer payable, miscellaneous short-term accruals and restructuring reserves.

(4) Working capital is total current assets less total current liabilities; current ratio represents total current assets divided by total current liabilities.

Working capital increased $825 million between Aug. 31, 2017, and Aug. 31, 2016, primarily because of the following factors:

- Cash and cash equivalents increased $180 million. For a more detailed discussion of the factors affecting the cash flow comparison, see the ''Cash Flow'' section in this section of MD&A.
- Trade receivables increased $235 million due to revenue recorded for granting a licensee the right to certain corn licenses in Brazil where the cash has not yet been collected, a change in customer contracts within cotton seeds and traits and increased Agricultural Productivity revenue.

- Inventory, net increased $99 million primarily due to a higher production of seed and traits inventory in Brazil.
- Short-term debt decreased $717 million primarily due to a decrease in outstanding commercial paper of $500 million, redemption of mandatorily redeemable shares of the Brazil VIE of $113 million and repayment of $100 million of Senior Notes.

These increases to working capital were partially offset by the following:

- Accounts payable increased $62 million primarily due to timing of payments compared to prior year.
- Accrued liabilities increased $324 million primarily due to the following fluctuations:
  - Accrued compensation and benefits increased $339 million due to current year incentive accruals.
  - Accrued marketing programs increased $268 million due to increased accruals in the United States resulting from higher revenues and increased Brazil accruals due to higher *Intacta RR2 PRO* soybean revenues.
  - Deferred revenues increased $159 million primarily related to *Intacta RR2 PRO* prepayments in Brazil for the upcoming season
- The increases in accrued liabilities were partially offset by the following:
  - Restructuring reserves decreased $190 million as a result of payments made under the 2015 Restructuring Plan and changes in estimates related to work force reductions.
  - Miscellaneous short-term accruals decreased $264 million primarily due to payments made related to the PCB settlement of $280 million. See Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies — for further information.

Backlog: Inventories of finished goods, goods in process and raw materials and supplies are maintained to meet customer requirements and our scheduled production. As is consistent with the nature of the seed industry, we generally produce in one growing season the seed inventories we expect to sell the following season. In general, we do not manufacture our products against a backlog of firm orders; production is geared to projected demand.

Customer Financing Programs: We participate in various customer financing programs in an effort to reduce our receivables risk and to reduce our reliance on commercial paper borrowings. As of Aug. 31, 2017, the programs had $646 million in outstanding balances, and we received $768 million of proceeds in fiscal year 2017 under these programs. Our future maximum payout under all programs, including our responsibility for our guarantees with lenders, was $100 million as of Aug. 31, 2017. See Item 8 — Financial Statements and Supplementary Data — Note 7 — Customer Financing Programs — for further discussion of these programs.

Cash Flow

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Net Cash Provided by Operating Activities	**$ 3,226**	$ 2,588	$ 3,108
Net Cash Required by Investing Activities	**(1,107)**	(864)	(1,019)
Net Cash Required by Financing Activities	**(1,966)**	(3,742)	(430)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	**27**	(7)	(325)
Net Increase (Decrease) in Cash and Cash Equivalents	**$ 180**	$(2,025)	$ 1,334

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Net Cash Provided by Operating Activities	**$ 3,226**	$ 2,588	$ 3,108
Capital Expenditures	**(1,240)**	(923)	(967)
Free Cash Flow[1]	**$ 1,986**	$ 1,665	$ 2,141

[1] Free cash flow represents the total of net cash provided or required by operating activities less capital expenditures (see the ''Overview — Non-GAAP Financial Measures'' section in MD&A for a further discussion).

2017 compared with 2016:

Operating: The increase in cash provided by continuing operations in fiscal year 2017 compared to fiscal year 2016 was primarily due to the following:

- A decrease in cash required for accounts receivables primarily due to the timing of collections,
- An increase in cash provided by accounts payable and other accrued liabilities due to increased taxes payable, an increase in employee incentives and an increase in market funding liabilities offset by cash payments related to the PCB settlement discussed at Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies.
- An increase in earnings from fiscal year 2016 to fiscal year 2017.

The above factors were offset by the following:

- An increase in cash required for inventory due to increased dicamba-based herbicide inventory build and higher production of seeds and genomics inventory, and
- A decrease in the restructuring reserves due to cash payments and changes in related estimates resulting from the 2015 Restructuring Plan.

Investing: The increase in cash required by investing activities in fiscal year 2017 compared to fiscal year 2016 was primarily due to an increase in capital expenditures partially offset by a reduction in purchases of short-term investments compared to prior year. Cash expenditures increased in fiscal 2017 compared to fiscal 2016 primarily due to construction of a dicamba-based herbicide manufacturing facility in Luling, Louisiana.

Financing: The decrease in cash required by financing activities in fiscal year 2017 compared to fiscal year 2016 was primarily due to treasury stock purchases related to the $3 billion accelerated share repurchase agreements that occurred in fiscal 2016 partially offset by more cash required for short-term and long-term debt reductions.

2016 compared with 2015: Cash provided by operating activities decreased 17 percent, or $520 million, to $2,588 million in fiscal year 2016 compared with $3,108 million in fiscal year 2015. The decrease was primarily driven by the following:

- An increase in trade receivables primarily due to a decrease in sales of receivables to third parties;
- Accounts payable and accrued liabilities utilized more cash in fiscal year 2016 compared to fiscal year 2015 primarily due to increased income tax payments and legal spend. This is offset by timing of accounts payable disbursements and an increase in miscellaneous short-term accruals which included the PCB settlement further discussed at Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies.
- An increase in cash payments made related to the 2015 Restructuring Plan, see Item 8 — Financial Statements and Supplementary Data — Note 5 — Restructuring — for further information; and
- A decrease in earnings from fiscal year 2015 to fiscal year 2016.

The above factors were partially offset by the following:

- A decrease in payments for inventory due to a lower production plan for corn inventory, partially offset by an inventory build in agricultural productivity;
- An increase in deferred revenue primarily resulting from *Intacta RR2 PRO;* and
- An increase in cash related to timing of collection of value added tax receivables.

Cash required by investing activities was $864 million in fiscal year 2016 compared with $1,019 million in fiscal year 2015. The decrease was primarily due to an increase in cash from other investments and property disposal proceeds related to the sale of sorghum manufacturing assets and non-core asset sales in the United States and Europe. A decrease in capital expenditures also provided for additional cash required by investing activities.

The amount of cash required by financing activities was $3,742 million in fiscal year 2016 compared with $430 million in fiscal year 2015. The increase was primarily due to treasury stock purchases related to the $3 billion accelerated share repurchase agreements and an increase in debt payments, partially offset by the increase in commercial paper borrowings and a decrease in bond issues.

Capital Resources and Liquidity

	As of Aug. 31,	
(Dollars in millions, except debt-to-capital ratio)	**2017**	2016
Short-Term Debt	**$ 870**	$1,587
Long-Term Debt	**7,254**	7,453
Total Monsanto Company Shareowners' Equity	**6,438**	4,534
Debt-to-Capital Ratio[1]	**56%**	67%

[1] Debt-to-capital ratio is the sum of short-term and long-term debt, divided by total Monsanto Company shareowners' equity, short-term and long-term debt.

A major source of our liquidity is operating cash flows, which can be derived from net income. This cash-generating capability and access to long-term investment grade debt financing markets provides us with the financial flexibility we need to meet operating, investing and financing needs. We believe our sources of liquidity will be sufficient to sustain operations and to finance anticipated investments. To the extent that cash provided by operating activities is not sufficient to fund our cash needs, we believe short-term commercial paper borrowings can be used to finance these requirements. We had no commercial paper borrowings outstanding at Aug. 31, 2017.

Debt and Other Credit Arrangements: In April 2016, we filed a shelf registration with the SEC (''2016 shelf registration'') that allows us to issue a maximum aggregate amount of $6 billion of debt, equity and hybrid offerings. The 2016 shelf registration expires in April 2019.

We have a $3 billion credit facility agreement with a group of banks that provides a senior unsecured revolving credit facility through Mar. 27, 2020. As of Aug. 31, 2017, we did not have any borrowings under this credit facility, and we were in compliance with all financial debt covenants.

In October 2016, we closed a $1 billion delayed draw term loan facility that matures the earlier of October 2019 or the consummation of the Merger with Bayer. Borrowings under the facility were $500 million as of Aug. 31, 2017. Proceeds were used for general corporate purposes.

Our debt-to-capital ratio decreased to 56 percent at Aug. 31, 2017, compared with 67 percent at Aug. 31, 2016, as a result of the decreased commercial paper and Senior Notes at Aug. 31, 2017, compared to Aug. 31, 2016, coupled with an increase in shareowners' equity as a result of earnings, partially offset by dividends.

We held cash and cash equivalents and short-term investments of $1,864 million and $1,736 million at Aug. 31, 2017, and Aug. 31, 2016, respectively, of which $1,281 million and $1,629 million was held by foreign entities, respectively. Our intent is to indefinitely reinvest approximately $4.2 billion of the $4.5 billion of undistributed earnings of our foreign operations that existed as of Aug. 31, 2017. It is not practicable to estimate the income tax liability that might be incurred if such indefinitely reinvested earnings were remitted to the United States.

Dividends: In fiscal year 2017, we declared the following dividends:

Quarter Ending	Declaration Date	Dividend	Payable Date	To Shareowners of Record as of:
Aug. 31, 2017	Aug. 10, 2017	54 cents	Oct. 27, 2017	Oct. 6, 2017
Aug. 31, 2017	Jun. 6, 2017	54 cents	Jul. 28, 2017	Jul. 7, 2017
Feb. 29, 2017	Jan. 27, 2017	54 cents	Apr. 28, 2017	Apr. 7, 2017
Feb. 29, 2017	Dec. 5, 2016	54 cents	Jan. 27, 2017	Jan. 6, 2017

We paid dividends totaling $948 million in fiscal year 2017, $964 million in fiscal year 2016 and $938 million in fiscal year 2015.

Share Repurchases: On Oct. 9, 2015, we entered into uncollared ASR agreements with each of Citibank, N.A. and JPMorgan Chase Bank, N.A., which settled in January 2016. In accordance with the terms of the agreements, an additional 3.8 million shares were received upon final settlement in fiscal year 2016 for a total of 32.2 million shares of Monsanto common stock repurchased at an aggregate cost to us of $3.0 billion. The ASR agreements were entered into pursuant to the share repurchase authorization announced June 2014.

In June 2014, we announced a two-year repurchase authorization of up to $10 billion of the company's common stock, which expired on June 24, 2016. There were no other publicly announced plans outstanding as of Aug. 31, 2017. The Merger Agreement includes restrictions on repurchases of shares of the company's common stock by the company.

Capital Expenditures: Our capital expenditures were $1,240 million in fiscal year 2017, $923 million in fiscal year 2016 and $967 million in fiscal year 2015.

Healthcare Benefits: The short-term impact of the Healthcare Acts does not have a material impact on our consolidated financial statements. We continue to monitor the long-term impact of the Healthcare Acts, but we do not expect a material impact on our consolidated financial statements.

Pension Contributions: In addition to contributing amounts to our pension plans if required by pension plan regulations, we continue to also make discretionary contributions if we believe they are merited. Although contributions to the U.S. qualified plan were not required, we contributed $15 million in fiscal year 2017 and $60 million in fiscal year 2016. Monsanto did not make any cash contributions to its U.S. qualified plan in fiscal year 2015. For fiscal year 2018, management expects to make $60 million in discretionary cash contributions to the U.S. qualified plan. As the level of required future contributions is unpredictable and depends heavily upon return on plan asset experience and interest rate levels, we will evaluate contributions to the plan on a regular basis in the near term.

Fiscal year 2018 pension expense will be determined using assumptions as of Aug. 31, 2017. Our expected rate of return on assets assumption will remain consistent for fiscal year 2018 at 7.50 percent for the U.S. qualified plan. This assumption was 7.50 percent in each of fiscal years 2017, 2016 and 2015, respectively. To determine the rate of return, we consider the historical experience and expected future performance of the plan assets, as well as the current and expected allocation of the plan assets. The U.S. qualified pension plan's asset allocation as of Aug. 31, 2017, was approximately 53 percent equity securities, 42 percent debt securities and five percent other investments, in line with our policy ranges. We periodically evaluate the allocation of plan assets among the different investment classes to ensure that they are within policy guidelines and ranges.

Our weighted average discount rate assumption for the 2018 pension expense is 3.73 percent for U.S. pension plans. This assumption was 3.43 percent, 4.33 percent and 4.04 percent in fiscal years 2017, 2016 and 2015, respectively. In determining the discount rate, we use yields on high-quality fixed-income investments that match the duration of the pension obligations. Our salary rate assumption as of Aug. 31, 2017, had a weighted average of 3.5 percent.

Holding all other assumptions constant, a quarter-to-half a percent decrease or increase in any one of the individual assumptions noted here would not materially affect our fiscal year 2018 pretax income.

Divestiture: In October 2008, we consummated the sale of the Dairy business after receiving approval from the appropriate regulatory agencies and received $300 million in cash, and may receive additional contingent consideration. The contingent consideration is a 10-year earn-out with potential annual payments being earned by us if certain revenue levels are exceeded.

On Nov. 2, 2015, we signed a definitive agreement with Deere & Company (''Deere'') to sell the Precision Planting equipment business which is included in the Seed and Genomics segment for approximately $190 million in cash, subject to customary working capital adjustments. In May 2017, we terminated our agreement with Deere to sell the Precision Planting equipment business subsequent to the U.S. Department of Justice filing a lawsuit to block Deere's acquisition of the Precision Planting equipment business. On Jul. 25, 2017, we signed a definitive agreement with AGCO Corporation to sell the Precision Planting equipment business for approximately $200 million in cash, subject to customary working capital adjustments. The sale of the business is expected to close in the first quarter of fiscal 2018 after satisfying customary closing conditions.

In fiscal 2017, we divested our Latitude business previously reported as part of the Agricultural Productivity segment for approximately $140 million in cash, subject to customary working capital adjustments. Approximately $85 million, less the carrying amount of assets sold of approximately $2 million, was recognized within other (income) expense, net in the Statement of Consolidated Operations. The recognition of the remaining $55 million is contingent on silthiofam re-registration within the European Union.

2016 Joint Venture: Effective June 15, 2016, we sold certain manufacturing assets and contributed to a newly-formed joint venture certain intellectual property, real property and tangible assets related to the company's sorghum business. The agreements created a global joint venture in sorghum breeding that will help expand the commercial and technology reach of the elite germplasm and remain focused on delivering important product offerings for sorghum growers so that they can continue to benefit from new innovations in the crop. We received a cash payment of $110 million and a minority interest in the newly-formed joint venture, which combined resulted in a gain of approximately $157 million in fiscal year 2016. The joint venture is accounted for using the equity method of accounting. See Item 8 — Financial Statements and Supplementary Data — Note 8 — Variable Interest Entities and Investments.

Contractual Obligations: We have certain obligations and commitments to make future payments under contracts. The following table sets forth our estimates of future payments under contracts as of Aug. 31, 2017. See Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies — for a further description of our contractual obligations.

		Payments Due by Fiscal Year Ending Aug. 31,					
(Dollars in millions)	Total	2018	2019	2020	2021	2022	2023 beyond
Total Debt, including Capital Lease Obligations[1]	$ 8,124	$ 870	$ 802	$ 108	$ 501	$253	$ 5,590
Interest Payments Relating to Long-Term Debt and Capital Lease Obligations[1]	6,027	312	289	268	267	253	4,638
Operating Lease Obligations	511	149	109	84	60	44	65
Purchase Obligations:							
Commitments to purchase inventories	3,668	1,365	484	472	383	294	670
Commitments to purchase breeding research	440	55	55	55	55	55	165
R&D alliances and joint venture obligations	145	45	34	30	19	16	1
Uncompleted additions to property	775	771	4	—	—	—	—
Other purchase obligations	25	24	1	—	—	—	—
Other Liabilities:							
Postretirement liabilities[2]	105	105	—	—	—	—	—
Unrecognized tax benefits[3]	93	—	—	—	—	—	—
Environmental liabilities	204	14	16	21	7	7	139
Total Contractual Obligations	$20,117	$3,710	$1,794	$1,038	$1,292	$922	$11,268

[1] For variable rate debt, interest is calculated using the applicable rates as of Aug. 31, 2017.

[2] Includes the company's planned pension and other postretirement benefit contributions for fiscal 2018. The actual amounts funded in fiscal 2018 may differ from the amounts listed above. Contributions in fiscal 2019 and beyond are excluded as those amounts are unknown. Refer to Item 8 — Financial Statements and Supplementary Data — Note 16 — Postretirement Benefits — Pensions — and Note 17 — Postretirement Benefits - Health Care and Other Postemployment Benefits — for more information.

[3] Unrecognized tax benefits relate to reserves for uncertain tax positions recorded under the Income Taxes topic of the Accounting Standards Codification (''ASC''). We are unable to reasonably predict the timing of tax settlements, as tax audits can involve complex issues, and the resolution of those issues may span multiple years, particularly if subject to negotiation or litigation. See Item 8 — Financial Statements and Supplementary Data — Note 12 — Income Taxes — for more information.

Off-Balance Sheet Arrangements

Under our Separation Agreement with Pharmacia, we are required to indemnify Pharmacia for certain liabilities that are primarily related to Pharmacia's former chemical and agricultural businesses. To the extent we are currently managing any such matters, we evaluate them in the course of managing our own potential liabilities and establish reserves as appropriate. However, additional matters may arise in the future, and we may manage, settle or pay judgments or damages with respect to those matters in order to mitigate contingent liability and protect Pharmacia and ourselves. See Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies and Part I — Item 3 — Legal Proceedings — for further information.

We have entered into various customer financing programs which are accounted for in accordance with the Transfers and Servicing topic of the ASC. See Item 8 — Financial Statements and Supplementary Data — Note 7 — Customer Financing Programs — for further information.

We have substantially completed making a significant expansion of our Chesterfield, Missouri, facility. In December 2013, we executed the first of a series of incentive agreements with the County of St. Louis, Missouri. Under these agreements we have transferred our Chesterfield, Missouri, facility to St. Louis County and received Industrial Revenue Bonds in the amount of up to $470 million which enables us to reduce our cost of constructing and operating the expansion by reducing certain state and local tax expenditures. We immediately leased the facility from the County of St. Louis and have an option to purchase the facility upon tendering the Industrial Revenue Bonds we received to the County. The payments due to us in relation to the Industrial Revenue Bonds and owed by us in relation to the lease of the facilities qualify for the right of offset under the Balance Sheet topic of the ASC on our Statements of Consolidated Financial Position. As such, neither the Industrial Revenue Bonds nor the lease obligation are recorded on the Statements of Consolidated Financial Position as an asset or liability, respectively. The Chesterfield facilities and the expansion is being treated as being owned by us.

Other Information

As discussed in Item 8 — Financial Statements and Supplementary Data — Note 24 — Commitments and Contingencies and Part I — Item 3 — Legal Proceedings, we are responsible for significant environmental remediation and are involved in a number of lawsuits and claims relating to a variety of issues. Many of these lawsuits relate to intellectual property disputes. We expect that such disputes will continue to occur as the agricultural biotechnology industry evolves.

Seasonality

Our fiscal year end of August 31 synchronizes our quarterly and annual results with the natural flow of the agricultural cycle in our major markets. It provides a more complete picture of the North American and South American growing seasons in the same fiscal year. Sales by our Seeds and Genomics segment, and to a lesser extent, by our Agricultural Productivity segment, are seasonal. In fiscal year 2017, approximately 67 percent of our Seeds and Genomics segment sales occurred in the second and third quarters. This segment's seasonality is primarily a function of the purchasing and growing patterns in North America. Agricultural Productivity segment sales were more evenly spread across our fiscal year quarters in 2017.

Net income has been the highest in the second and third quarters, which correlates with the sales of the Seeds and Genomics segment and its gross profit contribution. Sales and income may shift somewhat between quarters, depending on planting and growing conditions. Our inventory has historically been at its lowest level at the end of our fiscal year, which is consistent with the agricultural cycles in our major markets. However, at Aug 31, 2017, inventory was higher than at May 31, 2017, due to higher production of seed and traits inventory in Brazil and increased dicamba-based herbicide inventory. Additionally, our trade accounts receivable generally has been at its lowest levels in our fourth quarter, primarily because of collections received on behalf of both segments in the United States and Latin America, and the seasonality of our sales.

As is the practice in our industry, we regularly extend credit to enable our customers to acquire crop protection products and seeds at the beginning of the growing season. Because of the seasonality of our business and the need to extend credit to customers, we sometimes use commercial paper borrowings to finance working capital requirements. Our need for such financing has generally been higher in the first and third quarters of the fiscal year and lower in the second and fourth quarters of the fiscal year. Our customer financing programs are expected to continue to reduce our receivable risk and to reduce our reliance on commercial paper borrowings.

OUTLOOK

We believe we have achieved an industry-leading position in the areas in which we compete in both of our business segments. However, the outlook for each part of our businesses is quite different. In the Seeds and Genomics segment, our seeds and traits business is expected to expand via our investments in new products. In the Agricultural Productivity segment, we expect to continue to deliver new product formulations and systematic approaches that support our Seeds and Genomics segment.

We believe that our company is positioned to deliver value-added products to growers enabling us to grow our gross profit in the future. We expect to see strong cash flow in the future, and we remain committed to returning value to shareowners through vehicles such as investments that expand the business and dividends. We will remain focused on cost and cash management, both to support the progress we have made in managing our investment in working capital and to realize the full earnings potential of our businesses. We are in the process of executing our plan to reduce operational spending through fiscal year 2018. We plan to continue providing external financing opportunities for our customers as a way to manage receivables for each of our segments.

Outside of the United States, our businesses will continue to face challenges related to the risks inherent in operating in international markets. We will continue to consider, assess and address these developments and the challenges and issues they place on our businesses. We believe we have taken appropriate measures to manage our credit exposure, which has the potential to affect sales negatively in the near term. In addition, volatility in foreign currency exchange rates may negatively affect our profitability, the book value of our assets outside the United States and our shareowners' equity. We continuously monitor the potential for currency devaluation in Brazil, Argentina and Ukraine, including changes to exchange rate mechanisms or structures, and the potential impact on future periods. Subsequent to recent currency devaluations in Argentina, we continue to monitor the economic situations and the impact of currency volatility on earnings.

On Sept. 14, 2016, we entered into the Merger Agreement with Bayer, which provides for the acquisition of the company by Bayer for a price of $128 per share in cash. Upon consummation of the Merger, we will no longer be a standalone public company. The combined business is expected to benefit from the integration of Monsanto's seeds and traits business and The Climate Corporation platform with Bayer's broad crop protection product line, which we believe will result in significant benefits for farmers.

Seeds and Genomics

Our capabilities in plant breeding and biotechnology R&D are generating a rich and balanced product pipeline that we expect will drive long-term growth. We plan to continue to invest in the areas of seeds, genomics, biotechnology, digital agriculture and biologicals and to invest in technology arrangements that have the potential to increase the efficiency and effectiveness of our R&D efforts. We believe that our seeds and traits businesses will have near-term growth opportunities through a combination of improved breeding, continued growth of stacked biotech traits and expansion in established and emerging markets.

We expect advanced breeding techniques combined with improved production practices and capital investments will continue to contribute to improved germplasm quality and yields for our seed offerings, leading to increased global demand for both our branded germplasm and our licensed germplasm. Our vegetable seeds business, which has a portfolio focused on 21 crops, continues to develop and deliver new innovative products to our customers as we continue to focus on our breeding investments and process optimization. We expect to see continued competition in seeds and genomics. We believe we will maintain a competitive advantage because of our global breeding capabilities and our multiple-channel sales approach in the United States for corn and soybean seeds.

Commercialization of second- and third-generation traits and the stacking of multiple traits in corn, soy and cotton are expected to increase penetration in approved markets, particularly as we continue to price our traits in line with the value growers have experienced from their use. We continue to experience an increase in competition in biotechnology as more competitors launch traits in the United States and internationally. Acquisitions may also present mid-to-longer term opportunities to increase penetration of our traits.

Intacta RR2 PRO technology has been fully approved by Brazil, Argentina, Paraguay, Uruguay and their key export markets, and we are currently selling that technology in Brazil, Argentina, Paraguay and Uruguay. In South America, we generally operate using a business model working with growers and grain handlers to collect technology value for soybeans either on the sale of new certified seed or through a point-of-delivery system for seeds that have been saved and replanted. The system has been operating in Brazil for many years, and nearly all of the grain handlers have enrolled in the point-of-delivery system. In Argentina, nearly all of the exporting grain handlers and key local elevators have enrolled in the point-of-delivery system. As previously announced, due to uncertainty raised by actions of the government of Argentina, and while we continue to pursue value capture in Argentina, we have placed a hold on the launch of new soybean traits in that country. We continue to pursue a long-term system that operates with integrity and predictability and will continue to evaluate our soybean business in Argentina. With regard to first generation *Roundup Ready* soybeans, we have deferred collection of royalties in Brazil until a final decision is reached by the courts on our patent term correction case. The Supreme Court of Brazil has granted certiorari of the case. We do not plan to collect on first generation *Roundup Ready* soybeans in Argentina.

Our international traits businesses, in particular, are likely to continue to face unpredictable regulatory environments that may be highly politicized. We operate in volatile, and often difficult, economic and political environments. Longer term, income is expected to grow in South America as farmers choose to plant more of our approved traits in soybeans, corn and cotton. The agricultural economy in Brazil and Argentina could be impacted by global commodity prices, particularly for corn and soybeans. We continue to maintain our strict credit policy, expand our grain-based collection system and focus on cash collection and sales, as part of a continuous effort to manage our risk in Brazil and Argentina against such volatility.

Agricultural Productivity

Our Agricultural Productivity businesses operate in markets that are competitive. Gross profit and cash flow levels will fluctuate in the future based on global business dynamics including market supply, demand and manufacturing capacity. We expect to maintain our branded prices at a slight premium over generic products, and we believe our *Roundup* herbicide business will continue to be a sustainable source of cash and gross profit. Our crop protection business focus is to support our *Roundup Ready* crops strategically through our weed management platform that delivers weed control offerings for farmers. We continue to invest in the growth of our *Roundup Ready Xtend* crop system, which includes capital expenditures to construct a dicamba manufacturing facility in Luling, Louisiana. In addition, we expect our lawn-and-garden business will continue to be a solid contributor to our Agricultural Productivity segment.

Global glyphosate producers have the capacity to supply the market, but global dynamics including demand, environmental regulation compliance and raw material availability can cause fluctuations in supply and price of those generic products. We expect the fluctuation in global capacity will impact the selling prices and margins of *Roundup* brands and our third party sourcing opportunities.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

In preparing our financial statements, we must select and apply various accounting policies. Our most significant policies are described in Item 8 — Financial Statements and Supplementary Data — Note 2 — Significant Accounting Policies. In order to apply our accounting policies, we often need to make estimates based on judgments about future events. In making such estimates, we rely on historical experience, market and other conditions, and on assumptions that we believe to be reasonable. However, the estimation process is by its nature uncertain given that estimates depend on events over which we may not have control. If market and other conditions change from those that we anticipate, our results of operations, financial condition and changes in financial condition may be materially affected. In addition, if our assumptions change, we may need to revise our estimates, or to take other corrective actions, either of which may also have a material effect on our results of operations, financial condition or changes in financial condition. Members of our senior management have discussed the development and selection of our critical accounting estimates, and our disclosures regarding them, with the audit and finance committee of our board of directors, and do so on a regular basis.

We believe that the following estimates have a higher degree of inherent uncertainty and require our most significant judgments. In addition, had we used estimates different from any of these, our results of operations, financial condition or changes in financial condition for the current period could have been materially different from those presented.

Restructuring: We may from time to time initiate restructuring activities. Management is required to estimate the timing and amount of severance and other related benefits for workforce reduction, as well as the fair value of property, plant and equipment and goodwill and other intangible assets. Our written human resource policies are indicative of an ongoing benefit arrangement with respect to severance packages. Costs associated with severance and other related benefits for workforce reduction are recorded when we consider them probable and estimable. As of Aug. 31, 2017, and 2016, we had $44 million and $244 million, respectively, accrued related to severance and related benefit costs. The primary factors affecting our accrual for severance and related benefit costs include estimated years of service and eligible pay related to the position severed. We review long-lived assets and finite-lived intangible assets for impairment when, in management's judgment, conditions indicate a possible loss. Such an assessment involves estimating undiscounted cash flows over the remaining useful life of the assets. If the review indicates that undiscounted cash flows are less than the carrying value of the assets, the assets are considered to be impaired. If an impairment is indicated, the asset is written down to its fair value, or if fair value is not readily determinable, to an estimated fair value based on discounted cash flows. For fiscal years 2017, 2016 and 2015 for the 2015 Restructuring Plan, we have recognized $19 million, $43 million and $81 million, respectively, of impairments related to property, plant and equipment and $3 million, $39 million and $71 million, respectively, of impairments related to intangible assets.

Goodwill: The majority of our goodwill relates to our seed company acquisitions. We are required to assess at least annually whether any of our goodwill is impaired. In order to do this, we apply judgment in determining our reporting units, which represent component parts of our business. Our annual goodwill impairment assessment involves estimating the fair value of a reporting unit and comparing it with its carrying value. If the carrying value of the reporting unit exceeds its fair value, additional steps are required to calculate a potential impairment loss.

Calculating the fair value of the reporting units requires significant estimates and long-term assumptions. Changes in key assumptions about the business and its prospects, or any changes in market conditions, interest rates or other externalities, could result in an impairment charge. We estimate the fair value of our reporting units by applying discounted cash flow methodologies. A discounted cash flow analysis requires us to make various judgmental estimates and assumptions that include, but are not limited to, sales growth, gross profit margin rates and discount rates. Discount rates were evaluated by reporting segment to account for differences in inherent industry risk. Sales growth and gross profit margin assumptions were based on our long range plan.

The annual goodwill impairment tests were performed as of Mar. 1, 2017, and 2016, respectively. No indications of goodwill impairment existed as of either date. The results of management's Mar. 1, 2017, goodwill impairment test indicated that all reporting units had a calculated fair value greater than ten percent in excess of its carrying value.

Income Taxes: Management regularly assesses the likelihood that deferred tax assets will be recovered from future taxable income. To the extent management believes that it is more likely than not that a deferred tax asset will not be realized, a valuation allowance is established. When a valuation allowance is established, increased or decreased, an income tax charge or benefit is included in the consolidated financial statements, and net deferred tax assets are adjusted accordingly. Changes in tax laws, statutory tax rates and estimates of our future taxable income levels could result in actual realization of the deferred tax assets being materially different from the amounts provided for in the consolidated financial statements. If the actual recovery amount of the deferred tax asset is different than anticipated, we would be required to adjust the remaining deferred tax asset and the tax provision, resulting in an adjustment to net income and shareowners' equity.

As of Aug. 31, 2017, and Aug. 31, 2016, management has recorded deferred tax assets of $345 million and $335 million, respectively, in Brazil, the largest component of which relates to net operating loss carryforwards that have no expiration date. Management believes it is more likely than not that we will realize these deferred tax assets in Brazil.

As of Aug. 31, 2017, and Aug. 31, 2016, management has recorded deferred tax assets of $328 million and $281 million, respectively, in Argentina primarily related to accrued royalties for which a tax benefit will be realized when paid. As a result of losses generated in Argentina in the current and prior years, management determined we were not more likely than not to utilize these deferred tax assets and established a valuation allowance against the entire balance of these deferred tax assets in Argentina.

As of Aug. 31, 2017, and Aug. 31, 2016, management has recorded deferred tax assets related to foreign tax credits of $232 million and $97 million, respectively, in the United States that have a ten year carryforward period. Management believes it is more likely than not that we will realize these deferred tax assets in the United States.

Under the Income Taxes topic of the ASC, in order to recognize the benefit of an uncertain tax position, the taxpayer must be more likely than not of sustaining the position, and the measurement of the benefit is calculated as the largest amount that is more than 50 percent likely to be realized upon resolution of the position. Tax authorities regularly examine our tax returns in the jurisdictions in which we do business. Management regularly assesses the risk of our tax return filing positions and believes our accruals for uncertain tax positions are adequate as of Aug. 31, 2017, and Aug. 31, 2016.

Revenue Recognition: We sell our products directly to farmers, as well as through distributors, dealers and agents. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, and collection is reasonably assured. Product is considered delivered once it has been shipped to the farmer, distributor or dealer, or delivered to the farmer through an agent dealer, and risk and rewards of ownership have been transferred.

We may enter into multiple-element arrangements, including those where a customer purchases technology and licenses. When elements of a multiple element arrangement do not have stand-alone value, we account for such elements as a combined unit of accounting. We allocate revenue to each unit of accounting in a multiple-element arrangement based upon the relative selling price of each deliverable. When applying the relative selling price method, we determine the selling price for each deliverable by using vendor-specific objective evidence (''VSOE'') of selling price, if it exists, or third-party evidence (''TPE'') of selling price. If neither VSOE nor TPE of selling price exist for a unit of accounting, we use our best estimate of selling price for that unit of accounting. When we use our best estimate to determine selling price, significant judgment is required. The significant assumptions used to estimate selling price for significant units of accounting may consist of cost, gross margin objectives or forecasted customer selling volumes. Changes in assumptions used to estimate selling price could result in a different allocation of arrangement consideration across the units of accounting within an arrangement. Revenue allocated to each unit of accounting is recognized when all revenue recognition criteria for that unit of accounting have been met. Biotechnology trait license revenue, including those within multiple element arrangements, is generally recognized over the contract period as third-party seed companies sell seed containing our traits, which can be from one year up to the related patent term. License revenue from the sale of intellectual property, including those within multiple element arrangements, is generally recognized upon commencement of the license term.

We record reductions to revenue for estimated customer sales returns and certain customer incentive programs. These reductions to revenue are made based upon reasonable and reliable estimates that are determined by historical experience, economic trends, contractual terms, current market conditions and changes in customer demand. The primary factors affecting our accrual for estimated customer returns include estimated return rates as well as the number of units shipped that have a right of return. At least each quarter, we re-evaluate our estimates to assess the adequacy of our recorded accruals for customer returns and allowance for doubtful accounts and adjust the amounts as necessary.

Customer Incentive Programs: Customer incentive program costs are recorded in accordance with the Revenue Recognition topic of the ASC, based upon specific performance criteria met by our customers, such as purchase volumes, promptness of payment and market share increases. We also have Agricultural Productivity customer incentive programs which provide certain customers price protection consideration if standard published prices are lowered from the price the distributor was charged on the eligible products. The cost of certain customer incentive programs is recorded in net sales in the Statements of Consolidated Operations. Certain customer incentive programs require management to estimate the number of customers who will actually redeem the incentive. As actual customer incentive program expenses are not known at the time of the sale, estimates based on the best available information (such as historical experience and market research) and the specific terms and conditions of particular incentive programs are used as a basis for recording customer incentive program liabilities. If a greater than estimated proportion of customers redeem such incentives, we would be required to record additional reductions to revenue, which would have a negative impact on our results of operations and cash flow. Management analyzes and reviews the customer incentive program balances on a quarterly basis, and adjustments are recorded as appropriate.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to the effect of interest rate changes, foreign currency fluctuations and changes in commodity, equity and debt securities prices. Market risk represents the risk of a change in the value of a financial instrument, derivative or nonderivative, caused by fluctuations in interest rates, currency exchange rates and commodity, equity and debt securities prices. Monsanto handles market risk in accordance with established policies by engaging in various derivative transactions. Such transactions are not entered into for trading purposes.

See Item 8 — Financial Statements and Supplementary Data — Note 2 — Significant Accounting Policies, Note 14 — Fair Value Measurements — and Note 15 — Financial Instruments — to the consolidated financial statements for further details regarding the accounting and disclosure of our derivative instruments and hedging activities.

The sensitivity analysis discussed below presents the hypothetical change in fair value of those financial instruments held by the company as of Aug. 31, 2017, that are sensitive to changes in interest rates, currency exchange rates and commodity and equity securities prices. Actual changes may prove to be greater or less than those hypothesized.

Changes in Interest Rates: Our interest-rate risk exposure pertains primarily to the debt portfolio. To the extent that we have cash available for investment to ensure liquidity, we will invest that cash only in short-term instruments. Most of our debt as of Aug. 31, 2017, consisted of fixed-rate long-term obligations.

Market risk with respect to interest rates is estimated as the potential change in fair value resulting from an immediate hypothetical one percentage point parallel shift in the yield curve. The fair values of our investments and debt are based on quoted market prices or discounted future cash flows. As the carrying amounts on short-term debt and investments maturing in less than 360 days and the carrying amounts of variable-rate medium-term notes approximate their respective fair values, a one percentage point change in the interest rates would not result in a material change in the fair value of our debt and investments portfolio.

The following table illustrates the fair values of the company's long-term debt instruments at Aug. 31, 2017, and Aug. 31, 2016, and the fair values for each of these instruments after a hypothetical one percentage point decrease in interest rates to the rate that existed at Aug. 31, 2017, and Aug. 31, 2016:

(Dollars in millions)	Initial Principal Amount Issued	Fair Value[1] As of Aug. 31, 2017	Fair Value[1] As of Aug. 31, 2016	Fair Value Sensitivity As of Aug. 31, 2017	Fair Value Sensitivity As of Aug. 31, 2016
5.500% Senior Notes due 2035 issued July 2005	$400	$ 470	$ 472	$ 498	$ 535
5.500% Senior Notes due 2025 issued August 2005	314	366	367	372	395
5.125% Senior Notes due 2018 issued April 2008	300	306	317	307	322
5.875% Senior Notes due 2038 issued April 2008	250	304	302	321	345
2.200% Senior Notes due 2022 issued July 2012	250	247	249	254	263
3.600% Senior Notes due 2042 issued July 2012	250	230	232	252	274
1.850% Senior Notes due 2018 issued November 2013	300	300	302	303	309
4.650% Senior Notes due 2043 issued November 2013	300	319	315	340	370
1.150% Senior Notes due 2017 issued July 2014	500	—	500	—	504
2.125% Senior Notes due 2019 issued July 2014	500	503	506	508	520
2.750% Senior Notes due 2021 issued July 2014	500	511	516	521	540
3.375% Senior Notes due 2024 issued July 2014	750	774	788	804	845
4.200% Senior Notes due 2034 issued July 2014	500	517	526	559	598
4.400% Senior Notes due 2044 issued July 2014	1,000	1,034	1,042	1,130	1,232
4.700% Senior Notes due 2064 issued July 2014	750	765	723	796	881
4.300% Senior Notes due 2045 issued January 2015	365	359	351	381	414
2.850% Senior Notes due 2025 issued April 2015	300	297	301	310	325
3.950% Senior Notes due 2045 issued April 2015	500	481	488	532	581
Floating Rate Senior Notes due 2016 issued November 2013	400	—	400	—	400

[1]Does not include the fair value of other long term debt, primarily consisting of mandatorily redeemable shares of the Brazil VIE as of Aug. 31, 2017, and capital lease obligations as of Aug. 31, 2017, and 2016, which had a fair value of $127 million and $36 million at Aug. 31, 2017, and Aug. 31, 2016, respectively.

Foreign Currency Fluctuations: Monsanto transacts business in various foreign currencies other than the U.S. dollar, principally the European euro, Brazil real, Argentine peso, Canadian dollar and Mexican peso, which exposes us to movements in exchange rates which may impact revenue and expenses, assets and liabilities and cash flows. In managing foreign currency risk, we focus on reducing the volatility in consolidated cash flows and earnings caused by fluctuations in exchange rates. We may use foreign currency forward exchange contracts, foreign currency options and economic hedges to manage the net currency exposure, in accordance with established hedging policies. We may hedge recorded commercial transaction exposures, intercompany loans and forecasted transactions.

The company's significant hedged positions included the European euro, the Brazilian real, the Canadian dollar and the Australian dollar. The total notional amount of foreign currency derivative instruments designated as hedges and not designated as hedges at Aug. 31, 2017, was $2,586 million, representing a settlement liability of $6 million. All of these derivatives are hedges of anticipated transactions, translation exposure, or existing assets or liabilities, and mature within 12 months. For all derivative positions, we evaluated the effects of a ten percent shift in exchange rates between those currencies and the U.S. dollar, holding all other assumptions constant. Unfavorable currency movements of ten percent would negatively affect the fair values of the derivatives held to hedge currency exposures by $60 million. These unfavorable changes would generally have been offset by favorable changes in the values of the underlying exposures.

The company held cash and cash equivalents and short-term investments of $1,864 million at Aug. 31, 2017, of which $1,281 million was held by foreign entities. For all non-U.S. dollar denominated cash held by foreign entities, we evaluated the effects of a ten percent shift in exchange rates between those currencies and the U.S. dollar, holding all other assumptions constant. Unfavorable currency movements of ten percent would negatively affect the fair values of cash and cash equivalents and short-term investments by $128 million.

Changes in Commodity Prices: Where practical, we use futures contracts to protect the company against commodity price increases and use option contracts to limit the unfavorable effect that price changes could have on these purchases. Our futures contracts are accounted for as cash flow hedges and are mainly in the Seeds and Genomics segment. Our option contracts do not qualify for hedge accounting under the provisions specified by the Derivatives and Hedging topic of the ASC. The majority of these contracts hedge the committed or future purchases of, and the carrying value of payables to growers for, soybean and corn inventories. In addition, we collect payments on certain customer accounts in grain and enter into forward sales contracts to mitigate the commodity price exposure. A ten percent decrease in the prices would have a negative effect on the fair value of these instruments of $35 million. We also use natural gas, diesel and ethylene swaps to manage energy input costs and raw material costs. A ten percent decrease in the price of these swaps would have a negative effect on the fair value of these instruments of $5 million.

Changes in Equity Securities Prices: We also have investments in marketable equity securities. All such investments are classified as long-term available-for-sale investments. The fair value of these investments was $10 million and $13 million as of Aug. 31, 2017, and 2016, respectively. These securities are listed on a stock exchange, quoted in an over-the-counter market or measured using an independent pricing source and adjusted for expected future credit losses. If the market price of the marketable equity securities should decrease by ten percent, the fair value of the equities would decrease by $1 million. See Item 8 — Financial Statements and Supplementary Data — Note 14 — Fair Value Measurements — for further details.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

MANAGEMENT REPORT

Monsanto Company's management is responsible for the fair presentation and consistency, in accordance with accounting principles generally accepted in the United States of America, of all the financial information included in this Form 10-K. Where necessary, the information reflects management's best estimates and judgments.

Management is also responsible for establishing and maintaining an effective system of internal control over financial reporting. The purpose of this system is to provide reasonable assurance that Monsanto's assets are safeguarded against material loss from unauthorized acquisition, use or disposition, that authorized transactions are properly recorded to permit the preparation of accurate financial information in accordance with generally accepted accounting principles, that records are maintained which accurately and fairly reflect the transactions and dispositions of the company, and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the company. This system of internal control over financial reporting is supported by formal policies and procedures, including a Business Conduct program designed to encourage and assist employees in living up to high standards of integrity, as well as a Code of Ethics for Chief Executive and Senior Financial Officers. Management seeks to maintain the effectiveness of internal control over financial reporting by careful personnel selection and training, division of responsibilities, establishment and communication of policies, and ongoing internal reviews and audits. See Management's Annual Report on Internal Control over Financial Reporting for Management's conclusion of the effectiveness of Monsanto's internal control over financial reporting as of August 31, 2017.

Monsanto's consolidated financial statements have been audited by Deloitte & Touche LLP, independent registered public accounting firm. Their audits were conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), and included a test of financial controls, tests of accounting records, and such other procedures as they considered necessary in the circumstances.

The Audit and Finance Committee, composed entirely of outside directors, meets regularly with management, with the internal auditors and with the independent registered public accounting firm to review accounting, financial reporting, auditing and internal control matters. The committee has direct and private access to the registered public accounting firm and internal auditors.

Hugh Grant
Chairman and Chief Executive Officer

Pierre Courduroux
Senior Vice President and Chief Financial Officer

October 27, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

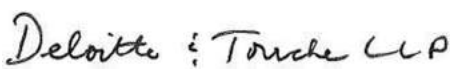
To the Board of Directors and Shareowners of Monsanto Company:

We have audited the accompanying statements of consolidated financial position of Monsanto Company and subsidiaries (the ''Company'') as of August 31, 2017 and 2016, and the related statements of consolidated operations, comprehensive income, shareowners' equity, and cash flows for each of the three years in the period ended August 31, 2017. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Monsanto Company and subsidiaries as of August 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended August 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of August 31, 2017, based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated October 27, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.



St. Louis, Missouri
October 27, 2017

Statements of Consolidated Operations

(Dollars in millions, except per share amounts)	Year Ended Aug. 31, 2017	2016	2015
Net Sales	**$14,640**	$13,502	$15,001
Cost of goods sold	**6,703**	6,485	6,819
Gross Profit	**7,937**	7,017	8,182
Operating Expenses:			
Selling, general and administrative expenses	**2,969**	2,833	2,686
Research and development expenses	**1,607**	1,512	1,580
Restructuring charges	**(36)**	297	393
Pending Bayer transaction related costs	**185**	—	—
Total Operating Expenses	**4,725**	4,642	4,659
Income from Operations	**3,212**	2,375	3,523
Interest expense	**452**	436	433
Interest income	**(76)**	(74)	(105)
Other (income) expense, net	**(50)**	22	34
Income from Continuing Operations Before Income Taxes	**2,886**	1,991	3,161
Income tax provision	**626**	695	864
Income from Continuing Operations Including Portion Attributable to Noncontrolling Interest	**2,260**	1,296	2,297
Discontinued Operations:			
Income from operations of discontinued businesses	**21**	27	45
Income tax provision	**8**	10	17
Income on Discontinued Operations	**13**	17	28
Net Income	**2,273**	1,313	2,325
Less: Net income (loss) attributable to noncontrolling interest	**13**	(23)	11
Net Income Attributable to Monsanto Company	**$ 2,260**	$ 1,336	$ 2,314
Amounts Attributable to Monsanto Company:			
Income from continuing operations	**$ 2,247**	$ 1,319	$ 2,286
Income on discontinued operations	**13**	17	28
Net Income Attributable to Monsanto Company	**$ 2,260**	$ 1,336	$ 2,314
Basic Earnings per Share Attributable to Monsanto Company:			
Income from continuing operations	**$ 5.12**	$ 2.98	$ 4.79
Income on discontinued operations	**0.03**	0.04	0.06
Net Income Attributable to Monsanto Company	**$ 5.15**	$ 3.02	$ 4.85
Diluted Earnings per Share Attributable to Monsanto Company:			
Income from continuing operations	**$ 5.06**	$ 2.95	$ 4.75
Income on discontinued operations	**0.03**	0.04	0.06
Net Income Attributable to Monsanto Company	**$ 5.09**	$ 2.99	$ 4.81
Weighted Average Shares Outstanding:			
Basic	**438.8**	442.7	476.9
Diluted	**443.8**	447.1	481.4

The accompanying notes are an integral part of these consolidated financial statements.

Statements of Consolidated Comprehensive Income

(Dollars in millions)	Year Ended Aug. 31, **2017**	2016	2015
Comprehensive Income Attributable to Monsanto Company			
Net Income Attributable to Monsanto Company	**$2,260**	$1,336	$2,314
Other Comprehensive Income (Loss), Net of Tax:			
Foreign currency translation, net of tax of $(1), $2 and $(18), respectively	**233**	35	(1,596)
Postretirement benefit plan activity, net of tax of $52, $(35) and $(39), respectively	**93**	(54)	(65)
Unrealized net losses on investment holdings, net of tax of $(1), $(1) and $0, respectively	**(2)**	(2)	—
Realized net losses (gains) on investment holdings, net of tax of $1, $1 and $(1), respectively	**2**	1	(3)
Unrealized net derivative gains (losses), net of tax of $11, $(26) and $(46), respectively	**21**	(42)	(54)
Realized net derivative losses, net of tax of $24, $44 and $23, respectively	**34**	55	31
Total Other Comprehensive Income (Loss), Net of Tax	**381**	(7)	(1,687)
Comprehensive Income Attributable to Monsanto Company	**2,641**	1,329	627
Comprehensive Income Attributable to Noncontrolling Interests			
Net Income (Loss) Attributable to Noncontrolling Interests	**13**	(23)	11
Other Comprehensive Income (Loss):			
Foreign currency translation	**1**	(1)	(4)
Total Other Comprehensive Income (Loss)	**1**	(1)	(4)
Comprehensive Income (Loss) Attributable to Noncontrolling Interests	**14**	(24)	7
Total Comprehensive Income	**$2,655**	$1,305	$ 634

The accompanying notes are an integral part of these consolidated financial statements.

Statements of Consolidated Financial Position

(Dollars in millions, except share amounts)	As of Aug. 31, 2017	2016
Assets		
Current Assets:		
Cash and cash equivalents (variable interest entity restricted - 2017: $94 and 2016: $122)	**$ 1,856**	$ 1,676
Short-term investments	**8**	60
Trade receivables, net (variable interest entity restricted - 2017: $74 and 2016: $7)	**2,161**	1,926
Miscellaneous receivables (variable interest entity restricted - 2017: $5 and 2016: $0)	**827**	755
Inventory, net	**3,340**	3,241
Assets held for sale	**199**	272
Other current assets (variable interest entity restricted - 2017: $1 and 2016: $0)	**260**	227
Total Current Assets	**8,651**	8,157
Total property, plant and equipment	**12,231**	11,116
Less accumulated depreciation	**6,301**	5,885
Property, Plant and Equipment, net	**5,930**	5,231
Goodwill	**4,088**	4,020
Other Intangible Assets, Net	**1,024**	1,125
Deferred Tax Assets (variable interest entity restricted - 2017: $11 and 2016: $0)	**564**	613
Long-Term Receivables, Net	**121**	101
Other Assets (variable interest entity restricted - 2017: $4 and 2016: $0)	**955**	489
Total Assets	**$ 21,333**	$ 19,736
Liabilities and Shareowners' Equity		
Current Liabilities:		
Short-term debt, including current portion of long-term debt (variable interest entity restricted - 2017: $0 and 2016: $113)	**$ 870**	$ 1,587
Accounts payable (variable interest entity restricted - 2017: $9 and 2016: $0)	**1,068**	1,006
Income taxes payable	**58**	41
Accrued compensation and benefits	**578**	239
Accrued marketing programs	**1,918**	1,650
Deferred revenues	**727**	568
Grower production accruals	**59**	47
Dividends payable	**237**	237
Customer payable	**106**	123
Restructuring reserves	**37**	227
Miscellaneous short-term accruals (variable interest entity restricted - 2017: $2 and 2016: $0)	**740**	1,004
Total Current Liabilities	**6,398**	6,729
Long-Term Debt (variable interest entity restricted - 2017: $104 and 2016: $0)	**7,254**	7,453
Postretirement Liabilities	**313**	371
Long-Term Deferred Revenue	**114**	35
Noncurrent Deferred Tax Liabilities	**192**	68
Long-Term Portion of Environmental and Litigation Liabilities	**218**	200
Restructuring Reserves Long Term	**9**	17
Other Liabilities	**377**	318
Shareowners' Equity:		
Common stock (authorized: 1,500,000,000 shares, par value $0.01) Issued 613,219,246 and 611,435,047 shares, respectively Outstanding 439,578,276 and 437,795,024 shares, respectively	**6**	6
Treasury stock 173,640,970 and 173,640,023 shares, respectively, at cost	**(15,053)**	(15,053)
Additional contributed capital	**11,840**	11,626
Retained earnings	**12,072**	10,763
Accumulated other comprehensive loss	**(2,427)**	(2,808)
Total Monsanto Company Shareowners' Equity	**6,438**	4,534
Noncontrolling Interest	**20**	11
Total Shareowners' Equity	**6,458**	4,545
Total Liabilities and Shareowners' Equity	**$ 21,333**	$ 19,736

The accompanying notes are an integral part of these consolidated financial statements.

Statements of Consolidated Cash Flows

(Dollars in millions)	Year Ended Aug. 31, 2017	2016	2015
Operating Activities:			
Net Income	**$ 2,273**	$ 1,313	$ 2,325
Adjustments to reconcile cash provided by operating activities:			
Items that did not require (provide) cash:			
Depreciation and amortization	**748**	727	716
Bad-debt expense	**69**	152	45
Stock-based compensation expense	**126**	111	111
Excess tax benefits from stock-based compensation	**—**	(16)	(44)
Deferred income taxes	**98**	97	(271)
Restructuring impairments	**46**	147	276
Equity affiliate loss, net	**15**	15	7
Net gain on sales of a business or other assets	**(163)**	(181)	(2)
Other items, net	**103**	181	118
Changes in assets and liabilities that (required) provided cash, net of acquisitions:			
Trade receivables	**(262)**	(498)	68
Inventory, net	**(74)**	181	(425)
Deferred revenues	**220**	189	32
Accounts payable and other accrued liabilities	**458**	176	235
Restructuring reserves	**(198)**	25	217
Pension contributions	**(35)**	(78)	(27)
Other items, net	**(198)**	47	(273)
Net Cash Provided by Operating Activities	**3,226**	2,588	3,108
Cash Flows Provided (Required) by Investing Activities:			
Purchases of short-term investments	**—**	(50)	(63)
Maturities of short-term investments	**50**	35	56
Capital expenditures	**(1,240)**	(923)	(967)
Acquisition of businesses, net of cash acquired	**(11)**	(2)	(8)
Purchases of long-term debt and equity securities	**—**	—	(30)
Technology and other investments	**(71)**	(69)	(48)
Other investments and property disposal proceeds	**165**	145	41
Net Cash Required by Investing Activities	**(1,107)**	(864)	(1,019)
Cash Flows (Required) Provided by Financing Activities:			
Net change in financing with less than 90-day maturities	**(695)**	676	45
Short-term debt proceeds	**72**	49	57
Short-term debt reductions	**(54)**	(272)	(36)
Long-term debt proceeds	**601**	9	1,279
Long-term debt reductions	**(1,019)**	(306)	(107)
Debt issuance costs	**(2)**	—	(12)
Treasury stock purchases	**—**	(3,001)	(835)
Stock option exercises	**103**	81	137
Excess tax benefits from stock-based compensation	**—**	16	44
Tax withholding on restricted stock and restricted stock units	**(19)**	(24)	(36)
Dividend payments	**(948)**	(964)	(938)
Payments to noncontrolling interests	**(5)**	(6)	(28)
Net Cash Required by Financing Activities	**(1,966)**	(3,742)	(430)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	**27**	(7)	(325)
Net Increase (Decrease) in Cash and Cash Equivalents	**180**	(2,025)	1,334
Cash and Cash Equivalents at Beginning of Period	**1,676**	3,701	2,367
Cash and Cash Equivalents at End of Period	**$ 1,856**	$ 1,676	$ 3,701

See Note 1 — Background and Basis of Presentation — and Note 23 — Supplemental Cash Flow Information for further details.
The accompanying notes are an integral part of these consolidated financial statements.

Statements of Consolidated Shareowners' Equity

(Dollars in millions, except per share data)	Monsanto Shareowners						
	Common Stock	Treasury Stock	Additional Contributed Capital	Retained Earnings	Accumulated Other Comprehensive (Loss)[1]	Non-Controlling Interest	Total
Balance Aug. 31, 2014	$6	$(10,032)	$10,003	$ 9,012	$(1,114)	$39	$ 7,914
Net income	—	—	—	2,314	—	11	2,325
Other comprehensive loss for fiscal 2015	—	—	—	—	(1,687)	(4)	(1,691)
Treasury stock purchases	—	(2,021)	1,200	—	—	—	(821)
Restricted stock withholding	—	—	(29)	—	—	—	(29)
Issuance of shares under employee stock plans	—	—	138	—	—	—	138
Net excess tax benefits from stock-based compensation	—	—	40	—	—	—	40
Stock-based compensation expense	—	—	112	—	—	—	112
Cash dividends of $2.01 per common share	—	—	—	(952)	—	—	(952)
Acquisition of noncontrolling interest	—	—	—	—	—	(3)	(3)
Payments to noncontrolling interest	—	—	—	—	—	(28)	(28)
Balance Aug. 31, 2015	$6	$(12,053)	$11,464	$10,374	$(2,801)	$15	$ 7,005
Net income (loss)	—	—	—	1,336	—	(23)	1,313
Other comprehensive loss for fiscal 2016	—	—	—	—	(7)	(1)	(8)
Treasury stock purchases	—	(3,000)	(1)	—	—	—	(3,001)
Restricted stock and restricted stock unit tax withholding	—	—	(24)	—	—	—	(24)
Issuance of shares under employee stock plans	—	—	81	—	—	—	81
Net excess tax benefits from stock-based compensation	—	—	11	—	—	—	11
Stock-based compensation expense	—	—	111	—	—	—	111
Cash dividends of $2.16 per common share	—	—	—	(947)	—	—	(947)
Acquisition of noncontrolling interest	—	—	(16)	—	—	26	10
Payments to noncontrolling interest	—	—	—	—	—	(6)	(6)
Balance Aug. 31, 2016	$6	$(15,053)	$11,626	$10,763	$(2,808)	$11	$ 4,545
Net income	**—**	**—**	**—**	**2,260**	**—**	**13**	**2,273**
Other comprehensive income for fiscal 2017	**—**	**—**	**—**	**—**	**381**	**1**	**382**
Restricted stock and restricted stock unit tax withholding	**—**	**—**	**(18)**	**—**	**—**	**—**	**(18)**
Issuance of shares under employee stock plans	**—**	**—**	**105**	**—**	**—**	**—**	**105**
Stock-based compensation expense	**—**	**—**	**127**	**—**	**—**	**—**	**127**
Cash dividends of $2.16 per common share	**—**	**—**	**—**	**(951)**	**—**	**—**	**(951)**
Payments to noncontrolling interest	**—**	**—**	**—**	**—**	**—**	**(5)**	**(5)**
Balance Aug. 31, 2017	**$6**	**$(15,053)**	**$11,840**	**$12,072**	**$(2,427)**	**$20**	**$ 6,458**

[1] See Note 21 — Accumulated Other Comprehensive Loss — for further details of the components of accumulated other comprehensive loss.
The accompanying notes are an integral part of these consolidated financial statements.

Notes to the Consolidated Financial Statements

NOTE 1. BACKGROUND AND BASIS OF PRESENTATION

Monsanto Company, along with its subsidiaries, is a leading global provider of agricultural products for farmers. Monsanto's seeds, biotechnology trait products, herbicides and digital agriculture products provide farmers with solutions that help improve productivity, reduce the costs of farming and produce better foods for consumers and better feed for animals.

Monsanto manages its business in two reportable segments: Seeds and Genomics and Agricultural Productivity. Through the Seeds and Genomics segment, Monsanto produces leading seed brands, including *DEKALB, Asgrow, Deltapine, Seminis* and *De Ruiter,* and Monsanto develops biotechnology traits that assist farmers in controlling insects and weeds and digital agriculture to assist farmers in decision making. Monsanto also provides other seed companies with genetic material and biotechnology traits for their seed brands. Through the Agricultural Productivity segment, the company manufactures *Roundup* and *Harness* brand herbicides and other herbicides. See Note 25 — Segment and Geographic Data — for further details.

In the fourth quarter of 2008, the company announced plans to divest its animal agricultural products business, which focused on dairy cow productivity and was previously reported as part of the Agricultural Productivity segment. This transaction was consummated on Oct. 1, 2008, and included a 10-year earn-out with potential annual payments being earned by Monsanto if certain revenue levels are exceeded. As a result, financial data for this business has been presented as discontinued operations.

On Nov. 2, 2015, the company signed a definitive agreement with Deere & Company (''Deere'') to sell the Precision Planting equipment business which is included in the Seed and Genomics segment for approximately $190 million in cash, subject to customary working capital adjustments. In May 2017, the company terminated its agreement with Deere to sell the Precision Planting equipment business. On Jul. 25, 2017, the company signed a definitive agreement with AGCO Corporation to sell the Precision Planting equipment business for approximately $200 million in cash, subject to customary working capital adjustments. The sale of the business is expected to close in the first quarter of fiscal 2018 after satisfying customary closing conditions. As of Aug. 31, 2017, and Aug. 31, 2016, Monsanto had $156 million and $172 million of assets held for sale, respectively, and $12 million of liabilities held for sale classified within miscellaneous short-term accruals, respectively, on the Statements of Consolidated Financial Position related to this transaction. The assets were primarily classified as inventory, net; trade receivables, net; property, plant, and equipment, net; goodwill; and other intangible assets, net, and the liabilities were primarily classified as accrued marketing programs and accounts payable.

During the fiscal year ended Aug. 31, 2017, the company divested its European-based silthiofam seed-treatment chemical business previously reported as part of the Agricultural Productivity segment for approximately $140 million in cash, subject to customary working capital adjustments. Approximately $85 million, less the carrying amount of assets sold of approximately $2 million, was recognized within other (income) expense, net in the Statement of Consolidated Operations for the fiscal year ended Aug, 31, 2017. The recognition of the remaining $55 million is contingent on silthiofam re-registration within the European Union.

Unless otherwise indicated, ''Monsanto'' and ''the company'' are used interchangeably to refer to Monsanto Company or to Monsanto Company and its consolidated subsidiaries, as appropriate to the context.

NOTE 2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Consolidation

The accompanying consolidated financial statements of Monsanto and its subsidiaries were prepared in accordance with generally accepted accounting principles in the United States of America (''GAAP'') and include the assets, liabilities, revenues and expenses of all majority-owned subsidiaries over which the company exercises control and, when applicable, entities for which the company has a controlling financial interest or is the primary beneficiary. Intercompany accounts and transactions have been eliminated in consolidation. The company records income attributable to noncontrolling interest in the Statements of Consolidated Operations for any non-owned portion of consolidated subsidiaries. Noncontrolling interest is recorded within the equity section but separate from Monsanto's equity in the Statements of Consolidated Financial Position.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make certain estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates are adjusted to reflect actual experience when necessary. Significant estimates and assumptions affect many items in the consolidated financial statements. These include allowance for doubtful trade receivables, sales returns and allowances, inventory obsolescence, income tax liabilities and assets and related valuation allowances, asset impairments, valuations of goodwill and other intangible assets, employee benefit plan assets and liabilities, value of equity-based awards, customer incentive program liabilities, restructuring reserves, self-insurance reserves, environmental reserves, deferred revenue, contingencies, litigation, incentives, the allocation of corporate costs to segments and certain cash flow projections. Significant estimates and assumptions are also used to establish the fair value and useful lives of depreciable tangible and certain intangible assets. Actual results may differ from those estimates and assumptions, and such results may affect income, financial position or cash flows.

Notes to the Consolidated Financial Statements *(continued)*

Revenue Recognition

The company derives most of its revenue from three main sources: sales of branded conventional seed and branded seed with biotechnology traits; royalties and license revenues from licensed biotechnology traits and genetic material; and sales of agricultural chemical products. Monsanto follows the Revenue Recognition topic of the Accounting Standards Codification (''ASC'').

Revenues from all seed sales are recognized when risks and rewards of ownership of the products are transferred. The company recognizes revenue on products it sells to distributors or other customers when, according to the terms of the sales agreement, delivery has occurred, performance is complete, expected returns can be reasonably estimated, and pricing is fixed or determinable. When the right of return exists in the company's seed business, sales revenues are reduced at the time of sale to reflect expected returns. In order to estimate the expected returns, management analyzes historical returns, economic trends, market conditions and changes in customer demand.

The Revenue Recognition topic of the ASC affects Monsanto's recognition of license revenues from biotechnology traits sold through third-party seed companies. The company may enter into multiple element arrangements, including those where a customer purchases technology and licenses. When elements of a multiple element arrangement do not have stand alone value, Monsanto accounts for such elements as a combined unit of accounting. The company allocates revenue to each unit of accounting in a multiple element arrangement based upon the relative selling price of each deliverable. When applying the relative selling price method, Monsanto determines the selling price for each deliverable by using vendor-specific objective evidence (''VSOE'') of selling price, if it exists, or third-party evidence (''TPE'') of selling price. If neither VSOE nor TPE of selling price exists for a unit of accounting, Monsanto uses its best estimate of selling price for that unit of accounting. When Monsanto uses its best estimate to determine selling price, significant judgment is required. The significant assumptions used to estimate selling price for significant units of accounting may consist of cost, gross margin objectives or forecasted customer selling volumes. Changes in assumptions used to estimate selling price could result in a different allocation of arrangement consideration across the units of accounting within an arrangement. Revenue allocated to each unit of accounting is recognized when all revenue recognition criteria for that unit of accounting have been met. Biotechnology trait license revenue, including those within multiple element arrangements, is generally recognized over the contract period as third-party seed companies sell seed containing Monsanto traits, which can be from one year up to the related patent term. License revenue from the sale of intellectual property, including those within multiple element arrangements, is generally recognized upon commencement of the license term.

Primarily in Brazil and Latin America, Monsanto has point-of-delivery collection systems for certain royalties for soybeans and cotton to record revenue when the grain containing Monsanto's technology is delivered and commercialized at the grain handlers and collectibility is reasonably assured.

Revenues for agricultural chemical products are recognized when title to the products is transferred. The company recognizes revenue on products it sells to distributors when, according to the terms of the sales agreements, delivery has occurred, performance is complete, no right of return exists unless required by law, and pricing is fixed or determinable.

There are several additional conditions for recognition of revenue including that the collection of sales proceeds must be reasonably assured based on historical experience and current market conditions and that there must be no consequential remaining performance obligations under the sale or the royalty or license agreement.

Amounts billed to customers for shipping and handling fees are included in net sales, and costs incurred by the company for the delivery of goods are classified as cost of goods sold in the Statements of Consolidated Operations.

To reduce credit exposure primarily in Latin America, Monsanto collects payments on certain customer accounts in grain. In those circumstances in Argentina when Monsanto participates in the negotiation of the forward sales contract, Monsanto records revenue and related cost of sale for the grain on a net basis. In those circumstances in Brazil when Monsanto does not participate in the negotiation of the forward sales contract and does not take physical custody of the grain or assume the associated inventory risk, Monsanto does not record revenue or the related cost of sales for the grain. Such payments in grain are negotiated at or near the time Monsanto's products are sold to the customers and are valued at the prevailing grain commodity prices. By entering into forward sales contracts with grain merchants, Monsanto mitigates the commodity price exposure from the time a contract is signed with a customer until the time a grain merchant collects the grain from the customer on Monsanto's behalf. The grain merchant converts the grain to cash for Monsanto. These forward sales contracts do not qualify for hedge accounting under the Derivatives and Hedging topic of the ASC. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

Promotional, Advertising and Customer Incentive Program Costs

Promotional and advertising costs are expensed as incurred and are included in selling, general and administrative expenses in the Statements of Consolidated Operations. Advertising costs were $68 million, $64 million and $74 million in fiscal 2017, 2016 and 2015, respectively. Customer incentive program costs are recorded in accordance with the Revenue Recognition topic of the ASC, based on specific performance criteria met by Monsanto's customers, such as purchase volumes, promptness of payment and market share increases. In fiscal 2017 and 2016, the company had Agricultural Productivity customer incentive programs providing certain customers price protection

consideration if standard published prices are lowered from the price the distributor was charged on the eligible products on or before April 30 of the respective program year. The cost of customer incentive programs is generally recorded in net sales in the Statements of Consolidated Operations. The fair value of incentive programs earned by customers for services with separate identifiable benefit is generally recorded in selling, general and administrative expenses in the Statements of Consolidated Operations. The cost of incentive programs earned by distributors determined to be agents is generally recorded in selling, general and administrative expenses in the Statements of Consolidated Operations. As actual customer incentive program expenses are not known at the time of the sale, an estimate based on the best available information (such as historical experience and market research) is used as a basis for recording customer incentive program liabilities. Management analyzes and reviews the customer incentive program balances on a quarterly basis, and adjustments are recorded as appropriate. Under certain customer incentive programs, customers may receive free product. The associated cost of this free product is recognized as cost of goods sold in the Statements of Consolidated Operations.

Research and Development Costs and Collaborative Arrangements

The company accounts for research and development (''R&D'') costs in accordance with the Research and Development topic of the ASC. Under the Research and Development topic of the ASC, all R&D costs must be charged to expense as incurred. Accordingly, internal R&D costs are expensed as incurred. Third-party R&D costs are expensed when the contracted work has been performed or as milestone results are achieved. In process research and development (''IPR&D'') costs acquired in a business combination are recorded on the Statements of Consolidated Financial Position as indefinite-lived intangible assets until completion or abandonment of the associated R&D efforts. The costs of purchased IPR&D that have alternative future uses are capitalized and amortized over the estimated useful life of the asset. IPR&D intangible assets are subject to annual impairment tests. The costs associated with equipment or facilities acquired or constructed for R&D activities that have alternative future uses are capitalized and depreciated on a straight-line basis over the estimated useful life of the asset. The amortization and depreciation for such capitalized assets are charged to R&D expenses. Monsanto has entered into collaborations with third parties for the R&D and commercialization of agricultural products. The company accounts for costs incurred and revenue generated under these collaborative arrangements from transactions with third parties in accordance with the Collaborative Arrangements topic of the ASC. Under the Collaborative Arrangements topic of the ASC, all costs incurred and revenue generated from transactions with third parties shall be recorded in each entity's respective income statement.

Income Taxes

Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax basis of assets and liabilities and their reported amounts. Management regularly assesses the likelihood that deferred tax assets will be recovered from future taxable income, and to the extent management believes that it is more likely than not that a deferred tax asset will not be realized, a valuation allowance is established. When a valuation allowance is established, increased or decreased, an income tax charge or benefit is included in the consolidated financial statements, and net deferred tax assets are adjusted accordingly. The net deferred tax assets as of Aug. 31, 2017, and Aug. 31, 2016, represent the estimated future tax benefits to be received from future reductions of taxes payable.

Under the Income Taxes topic of the ASC, in order to recognize the benefit of an uncertain tax position, the taxpayer must be more likely than not of sustaining the position, and the measurement of the benefit is calculated as the largest amount that is more than 50 percent likely to be realized upon resolution of the position. Tax authorities regularly examine the company's tax returns in the jurisdictions in which it does business. Management regularly assesses the risk of the company's tax return filing positions and believes its accruals for uncertain tax positions are adequate as of Aug. 31, 2017, and Aug. 31, 2016.

Cash and Cash Equivalents

All highly liquid investments (defined as investments with a maturity of three months or less when purchased) are considered cash equivalents.

Inventory Valuation and Obsolescence

Inventories are stated at the lower of cost or market value for inventory measured using last-in, first-out (''LIFO'') method. Inventories are stated at the lower of cost or net realizable value for inventory measured under the first-in, first-out (''FIFO'') or average cost method. An inventory reserve would permanently reduce the cost basis of inventory. Inventories are valued as follows:

- *Seeds and Genomics:* Actual cost is used to value raw materials such as treatment chemicals and packaging, as well as goods in process. Costs for substantially all finished goods, which include the cost of carryover crops from the previous year, are valued at weighted-average actual cost. Weighted-average actual cost includes field growing and harvesting costs, plant conditioning and packaging costs and manufacturing overhead costs.
- *Agricultural Productivity:* Actual cost is used to value raw materials and supplies. Standard cost, which approximates actual cost, is used to value finished goods and goods in process. Variances, exclusive of abnormally low volume and operating performance, are capitalized into inventory. Standard cost includes direct labor and raw materials and

manufacturing overhead based on normal capacity. The cost of the Agricultural Productivity segment inventories in the United States (approximately 17 and 11 percent of total company inventory as of Aug. 31, 2017, and Aug. 31, 2016) is determined by using the LIFO method, which generally reflects the effects of inflation or deflation on cost of goods sold sooner than other inventory cost methods. The cost of inventories outside of the United States, as well as supplies inventories in the United States, is determined by using the FIFO method; FIFO is used outside of the United States because the requirements in the countries where Monsanto maintains inventories generally do not allow the use of the LIFO method. Inventories at FIFO approximate current cost.

In accordance with the Inventory topic of the ASC, Monsanto records abnormal amounts of idle facility expense, freight, handling costs and wasted material (spoilage) as current period charges and allocates fixed production overhead to the costs of conversion based on the normal capacity of the production facilities.

Monsanto establishes allowances for obsolescence of inventory equal to the difference between the cost of inventory (if higher) and the estimated market value, based on assumptions about future demand and market conditions. The company regularly evaluates the adequacy of its inventory obsolescence reserves. If economic and market conditions are different from those anticipated, inventory obsolescence could be materially different from the amounts provided for in the company's consolidated financial statements.

Goodwill

Monsanto follows the guidance of the Business Combinations topic of the ASC in recording the goodwill arising from a business combination as the excess of purchase price and related costs over the fair value of identifiable assets acquired and liabilities assumed.

Under the Intangibles – Goodwill and Other topic of the ASC, goodwill is not amortized and is subject to annual impairment tests. A fair-value-based test is applied at the reporting unit level, which is generally at or one level below the operating segment level. The test compares the fair value of the company's reporting units to the carrying value of those reporting units. This test requires various judgments and estimates. The fair value of goodwill is determined using an estimate of future cash flows of the reporting unit and a risk-adjusted discount rate to compute a net present value of future cash flows. An adjustment to goodwill will be recorded for any goodwill that is determined to be impaired. Impairment of goodwill is measured as the excess of the carrying amount of goodwill over the fair values of recognized assets and liabilities of the reporting unit. Goodwill is tested for impairment at least annually, or more frequently if events or circumstances indicate it might be impaired.

Other Intangible Assets

Other intangible assets consist primarily of acquired seed germplasm, intellectual property, trademarks and customer relationships. Seed germplasm is the genetic material used in new seed varieties. Germplasm is amortized on a straight-line basis over useful lives ranging from five years for completed technology germplasm to a maximum of 30 years for certain core technology germplasm. Completed technology germplasm consists of seed hybrids and varieties that are commercially available. Core technology germplasm is the collective germplasm of parental seeds and has a longer useful life as it is used to develop new seed hybrids and varieties. Acquired intellectual property includes intangible assets related to acquisitions and licenses through which Monsanto has acquired the rights to various research and discovery technologies. These encompass intangible assets such as enabling processes and data libraries necessary to support the integrated genomics and biotechnology platforms. These intangible assets have alternative future uses and are amortized over useful lives ranging from two years to 19 years. The useful lives of acquired germplasm and acquired intellectual property are determined based on consideration of several factors including the nature of the asset, its expected use, length of licensing agreement or patent and the period over which benefits are expected to be received from the use of the asset.

Monsanto has a broad portfolio of trademarks for herbicide products, traits, agricultural seeds and vegetable seeds, and patents for its traits, formulations used to make its herbicides and various manufacturing processes. The amortization period for acquired trademarks and patents ranges from three years to 30 years. Trademarks are amortized on a straight-line basis over their useful lives. The useful life of a trademark is determined based on the estimated market-life of the associated company, brand or product. Patents are amortized on a straight-line basis over the period in which the patent is legally protected, the period over which benefits are expected to be received, or the estimated market-life of the product with which the patent is associated, whichever is shorter.

In conjunction with acquisitions, Monsanto obtains access to the distribution channels and customer relationships of the acquired companies. These relationships are expected to provide economic benefits to Monsanto. The amortization period for customer relationships ranges from five years to 20 years, and amortization is recognized on a straight-line basis over these periods. The amortization period of customer relationships represents management's best estimate of the expected usage or consumption of the economic benefits of the acquired assets, which is based on the company's historical experience of customer attrition rates.

In accordance with the Property, Plant and Equipment topic of the ASC, all amortizable intangible assets are assessed for impairment whenever events indicate a possible loss. At a minimum, Monsanto assesses all amortizable intangible assets annually. Such an assessment involves estimating undiscounted

cash flows over the remaining useful life of the intangible. If the review indicates that undiscounted cash flows are less than the recorded value of the intangible asset, the carrying amount of the intangible is reduced by the estimated cash-flow shortfall on a discounted basis, and a corresponding loss is charged to the Statement of Consolidated Operations.

Property, Plant and Equipment

Property, plant and equipment is recorded at cost. Additions and improvements are capitalized; these include all material, labor and engineering costs to design, install or improve the asset and interest costs on construction projects. Such costs are not depreciated until the assets are placed in service. Routine repairs and maintenance are expensed as incurred. The cost of plant and equipment is depreciated using the straight-line method over the estimated useful life of the asset — weighted-average periods of approximately 25 years for buildings, ten years for machinery and equipment and five years for software. In compliance with the Property, Plant and Equipment topic of the ASC, long-lived assets are reviewed for impairment whenever in management's judgment conditions indicate a possible loss. Such impairment tests compare estimated undiscounted cash flows to the recorded value of the asset. If an impairment is indicated, the asset is written down to its fair value or, if fair value is not readily determinable, to an estimated fair value based on discounted cash flows.

Asset Retirement Obligations and Environmental Remediation Liabilities

Monsanto follows the Asset Retirement and Environmental Obligations topic of the ASC, which addresses financial accounting for and financial reporting of a liability for an asset retirement obligation and an environmental remediation liability that results from the normal operation of a long-lived asset. Monsanto has asset retirement obligations with carrying amounts totaling $83 million and $78 million included in other liabilities on the Statements of Consolidated Financial Position as of Aug. 31, 2017, and Aug. 31, 2016, respectively, primarily relating to its manufacturing facilities.

In accordance with the Asset Retirement and Environmental Obligations topic of the ASC, Monsanto accrues these costs in the period when responsibility is established and when such costs are probable and reasonably estimable based on current law and existing technology. Postclosure and remediation costs for hazardous waste sites and other waste facilities at operating locations are accrued over the estimated life of the facility, as part of its anticipated closure cost.

Litigation and Other Contingencies

Monsanto is involved from time to time in various intellectual property, biotechnology, tort, contract, antitrust, shareowner claims, environmental and other litigation, claims and legal proceedings; environmental remediation; and government investigations. Management routinely assesses the likelihood of adverse judgments or outcomes to those matters, as well as ranges of probable losses, to the extent losses are reasonably estimable. In accordance with the Contingencies topic of the ASC, accruals for such contingencies are recorded to the extent that management concludes their occurrence is probable and the financial impact, should an adverse outcome occur, is reasonably estimable. Disclosure for specific legal contingencies is provided if the likelihood of occurrence is at least reasonably possible, and the exposure is considered material to the consolidated financial statements. In making determinations of likely outcomes of litigation matters, management considers many factors. These factors include, but are not limited to, past experience, scientific and other evidence, interpretation of relevant laws or regulations and the specifics and status of each matter. If the assessment of the various factors changes, the estimates may change. That may result in the recording of an accrual or a change in a previously recorded accrual. Predicting the outcome of claims and litigation and estimating related costs and exposure involves substantial uncertainties that could cause actual costs to vary materially from estimates and accruals.

Guarantees

Monsanto is subject to various commitments under contractual and other commercial obligations. The company recognizes liabilities for contingencies and commitments under the Guarantees topic of the ASC.

Foreign Currency Translation

The financial statements for most of Monsanto's ex-U.S. operations are translated to U.S. dollars at current exchange rates. For assets and liabilities, the fiscal year-end rate is used. For revenues, expenses, gains and losses, an approximation of the average rate for the period is used. Unrealized currency adjustments in the Statements of Consolidated Financial Position are accumulated in equity as a component of accumulated other comprehensive loss. The financial statements of ex-U.S. operations in highly inflationary economies are translated at either current or historical exchange rates at the time they are deemed highly inflationary, in accordance with the Foreign Currency Matters topic of the ASC. These currency adjustments and the remeasurement of assets and liabilities of ex-U.S. operations with the U.S. dollar designated as their functional currency are included in net income. Based on the Consumer Price Index (''CPI''), Monsanto designated Venezuela as a hyperinflationary country effective June 1, 2009. The functional currency of the company's foreign entities in Argentina is the U.S. dollar.

Significant translation exposures include the Brazilian real, Mexican peso, European euro, Indian rupee, South African rand, Turkish lira and Ukrainian hryvnia. Currency restrictions are not expected to have a significant effect on Monsanto's cash flow, liquidity or capital resources.

Notes to the Consolidated Financial Statements *(continued)*

Derivatives and Other Financial Instruments

Monsanto uses financial derivative instruments and natural hedges to limit its exposure to changes in foreign currency exchange rates, commodity prices and interest rates. Monsanto does not use financial derivative instruments for the purpose of speculating in foreign currencies, commodities or interest rates. Monsanto continually monitors its underlying market risk exposures and believes that it can modify or adapt its hedging strategies as needed.

In accordance with the Derivatives and Hedging topic of the ASC, all derivatives, whether designated for hedging relationships or not, are recognized in the Statements of Consolidated Financial Position at their fair value. At the time a derivative contract is entered into, Monsanto designates each derivative as: (1) a hedge of the fair value of a recognized asset or liability (a fair-value hedge), (2) a hedge of a forecasted transaction or of the variability of cash flows that are to be received or paid in connection with a recognized asset or liability (a cash-flow hedge), (3) a foreign-currency fair-value or cash-flow hedge (a foreign-currency hedge) or (4) a derivative that does not qualify for hedge accounting treatment.

Changes in the fair value of a derivative that is considered highly effective, and that is designated as and qualifies as a fair-value hedge, along with changes in the fair value of the hedged asset or liability that are attributable to the hedged risk, are recorded in current-period net income. Changes in the fair value of a derivative that is considered highly effective, and that is designated as and qualifies as a cash-flow hedge, to the extent that the hedge is effective, are recorded in accumulated other comprehensive loss until net income is affected by the variability from cash flows of the hedged item. Any hedge ineffectiveness is included in current-period net income. Changes in the fair value of a derivative that is considered highly effective, and that is designated as and qualifies as a foreign-currency hedge, are recorded either in current-period net income or in accumulated other comprehensive loss, depending on whether the hedging relationship satisfies the criteria for a fair-value or cash-flow hedge. Changes in the fair value of derivative instruments not designated as hedges are reported in current-period net income.

Monsanto formally and contemporaneously documents all relationships between hedging instruments and hedged items, as well as its risk-management objective and its strategy for undertaking various hedge transactions. This includes linking all derivatives that are designated as fair-value, cash-flow or foreign-currency hedges either to specific assets and liabilities on the Statements of Consolidated Financial Position, or to firm commitments or forecasted transactions. Monsanto formally assesses a hedge at its inception and on an ongoing basis thereafter to determine whether the hedging relationship between the derivative and the hedged item is still highly effective, and whether it is expected to remain highly effective in future periods, in offsetting changes in fair value or cash flows. When derivatives cease to be highly effective hedges, Monsanto discontinues hedge accounting prospectively.

NOTE 3. NEW ACCOUNTING STANDARDS

In August 2017, the Financial Accounting Standards Board (''FASB'') issued accounting guidance, ''Targeted Improvements to Accounting for Hedging Activities'' which seeks to better align an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2018. Adoption will be applied on a modified retrospective approach to existing hedging relationships as of the date of adoption. Monsanto is required to adopt this standard in the first quarter of fiscal year 2020. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In May 2017, the FASB issued accounting guidance, ''Scope of Modification Accounting'' which clarifies modification accounting for share-based payment awards should not be applied if the fair value, vesting conditions, and classification of the modified award are the same before and immediately after the modification. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017. Adoption will be applied prospectively to awards modified on or after the adoption date. Accordingly, Monsanto is required to adopt this standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In February 2017, the FASB issued accounting guidance, ''Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost'' which requires the disaggregation of the service cost component from other components of net periodic benefit cost, clarifies how to present the service cost component and other components of net benefit costs in the Statements of Consolidated Operations and allows only the service cost component of net benefit costs to be eligible for capitalization. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with early adoption permitted as of the beginning of a fiscal year for which interim or annual statements have not been issued. Adoption will be applied on a retrospective basis for the presentation of all components of net periodic benefit costs and on a prospective basis for the capitalization of the service cost component of net periodic pension cost and net periodic postretirement benefit in assets. Accordingly, Monsanto is required to adopt this standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

Notes to the Consolidated Financial Statements *(continued)*

In February 2017, the FASB issued accounting guidance, ''Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sale of Nonfinancial Assets'' which clarifies the scope of transactions that are accounted for in accordance with the Other Income topic of the ASC as well as when these assets would be derecognized. The Other Income topic of the ASC applies to a sale or transfer to a non-customer of nonfinancial assets or financial assets in a contract with substantially all of the fair value concentrated in nonfinancial assets. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with an early adoption of one-year permitted. This guidance is required to be adopted at the same time ''Revenue from Contracts with Customers'' is adopted. Entities have the option to apply the new guidance under a retrospective approach to each prior reporting period presented or a modified retrospective approach with the cumulative effect of initially applying the new guidance recognized at the date of initial application within the Statement of Consolidated Financial Position. The method of adoption elected may be different than the method of adoption for ''Revenue from Contracts with Customers.'' Monsanto is required to adopt this standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In January 2017, the FASB issued accounting guidance, ''Simplifying the Test for Goodwill Impairment'' which would eliminate the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge. Instead, the amount of an impairment charge would be recognized if the carrying amount of a reporting unit is greater than its fair value. This standard is effective for annual or any interim goodwill impairments tests in fiscal years beginning after Dec. 15, 2019, with early adoption permitted. Adoption will be applied on a prospective basis. Monsanto is required to adopt this standard in the first quarter of fiscal year 2021. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In January 2017, the FASB issued accounting guidance, ''Clarifying the Definition of a Business'' which requires an evaluation of whether substantially all fair value of the assets acquired or disposed of is concentrated in a single identifiable asset or a group of similar identifiable assets. If this threshold is met, the set of transferred assets and activities is not a business. The guidance also requires a business to include at least one substantive process. Transactions that meet the definition of a business are expected to decrease as a result of the adoption of this guidance. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with early adoption permitted. Adoption will be applied on a prospective basis. Monsanto is required to adopt this standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In November 2016, the FASB issued accounting guidance, ''Statement of Cash Flows: Restricted Cash'' which requires restricted cash and restricted cash equivalents to be classified in the Statements of Cash Flows as cash and cash equivalents. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with early adoption permitted. Adoption will be applied on a retrospective basis to all periods presented. Monsanto is required to adopt this standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In October 2016, the FASB issued accounting guidance, ''Income Taxes: Intra-Entity Transfers of Assets Other than Inventory'' which will require the income tax effects of intra-entity transfers of assets other than inventory to be recognized when the transfer occurs. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with early adoption permitted as of the beginning of an annual period. Adoption will be applied on a modified retrospective basis. Monsanto is required to adopt the standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In August 2016, the FASB issued accounting guidance, ''Classification of Certain Cash Receipts and Cash Payments'' which clarifies the classification of the activity in the Statements of Consolidated Cash Flows and how the predominant principle should be applied when cash receipts and cash payments have more than one class of cash flows. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with early adoption permitted. Adoption will be applied retrospectively. Monsanto is required to adopt the standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In June 2016, the FASB issued accounting guidance, ''Measurement of Credit Losses on Financial Instruments'' which replaces the incurred loss methodology to record credit losses with a methodology that reflects the expected credit losses for financial assets not accounted for at fair value with gains and losses recognized through net income. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2019, with early adoption permitted for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2018. This standard will be adopted on a modified retrospective basis. Monsanto is required to adopt this standard in the first quarter of fiscal year 2021, with early adoption permitted in the first quarter of fiscal year 2020. The company is currently evaluating the impact this guidance will

Notes to the Consolidated Financial Statements *(continued)*

have on the consolidated financial statements and related disclosures.

In March 2016, the FASB issued accounting guidance, ''Improvements to Employee Share-Based Payment Accounting'' which simplifies the income tax consequences, accounting for forfeitures and classification on the Statements of Consolidated Cash Flows. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2016, with early adoption permitted. Monsanto is required to adopt the standard in the first quarter of fiscal year 2018. The company elected to early adopt this standard in the fourth quarter of fiscal year 2017. See Note 19 — Stock-Based Compensation Plans for further discussion of the impact of adoption.

In February 2016, the FASB issued accounting guidance, ''Leases'' which will supersede the existing lease guidance and will require all leases with a term greater than 12 months to be recognized in the Statements of Financial Position and eliminate current real estate-specific lease guidance, while maintaining substantially similar classification criteria for distinguishing between finance leases and operating leases. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2018, with early adoption permitted. This standard will be adopted on a modified retrospective basis. Monsanto is required to adopt the standard in the first quarter of fiscal year 2020. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In January 2016, the FASB issued accounting guidance, ''Recognition and Measurement of Financial Assets and Financial Liabilities'' which would require equity investments not accounted for as an equity method investment or that result in consolidation to be recorded at their fair value with changes in fair value recognized in the Statements of Consolidated Operations. Those equity investments that do not have a readily determinable fair value may be measured at cost less impairment, if any, plus or minus changes resulting from observable price changes. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after Dec. 15, 2017, with early adoption prohibited. Monsanto is required to adopt the standard in the first quarter of fiscal year 2019. The company is currently evaluating the impact this guidance will have on the consolidated financial statements and related disclosures.

In February 2015, the FASB issued accounting guidance, ''Amendments to the Consolidation Analysis'' which changes the guidance with respect to the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. All legal entities are subject to reevaluation under the revised consolidation model. The new guidance affects the following areas: (1) limited partnerships and similar legal entities, (2) evaluating fees paid to a decision maker or a service provider as a variable interest, (3) the effect of fee arrangements on the primary beneficiary determination, (4) the effect of related parties on the primary beneficiary determination and (5) certain investment funds. This standard is effective for fiscal years, and for interim periods within those fiscal years, beginning after Dec. 15, 2015. Accordingly, Monsanto adopted this standard in the first quarter of fiscal year 2017. The adoption of this guidance did not have an impact on the consolidated financial statements or related disclosures.

In May 2014, the FASB issued accounting guidance, ''Revenue from Contracts with Customers'' which has been further clarified and amended. The core principle of the new standard is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration (that is, payment) to which the company expects to be entitled in exchange for those goods or services. The new standard also will result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively (for example, service revenue and contract modifications) and clarify guidance for multiple-element arrangements. Entities have the option to apply the new guidance under a retrospective approach to each prior reporting period presented or a modified retrospective approach with the cumulative effect of initially applying the new guidance recognized at the date of initial application within the Statement of Consolidated Financial Position. In August 2015, the FASB amended the guidance to allow for the deferral of the effective date of this standard. The standard is effective for fiscal years, and interim periods within those years, beginning after Dec. 15, 2017. Accordingly, Monsanto is required to adopt this standard in the first quarter of fiscal year 2019. One-year early adoption is permitted. The initial analysis identifying areas that will be impacted by the new guidance is substantially complete, and the company is currently analyzing the potential impacts to the consolidated financial statements and related disclosures. The company believes the most significant impact relates to its accounting for biotechnology trait license revenue with fixed payments. Specifically, under the new standard, revenue for biotechnology trait licenses with fixed payments are expected to be recognized upon commencement of the license term rather than over the contract period. Due to complexities of certain biotechnology trait license agreements, the actual revenue recognition treatment under the standard will be dependent upon contract-specific terms and may vary in some instances from recognition upon commencement of the license term. Upon adoption, the company may recognize a cumulative material adjustment to increase retained earnings, reflecting license revenue for which the contract period has not yet finished. The company does not expect the adoption of this standard to have an impact on the cash flows related to these license agreements. Revenue from seed sales, agricultural chemical products and biotechnology trait licenses recognized as third-party seed companies sell seed is expected to remain substantially unchanged. The company anticipates utilizing the modified retrospective method for adopting the standard.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 4. COLLABORATIVE ARRANGEMENTS

In the normal course of business, Monsanto enters into collaborative arrangements for the research, development, manufacture and/or commercialization of agricultural products. Collaborative arrangements are contractual agreements with third parties that involve a joint operating activity, such as R&D and commercialization of a collaboration product, where both Monsanto and the third party are active participants in the activities of the collaboration and are exposed to significant risks and rewards of the collaboration. These collaborations generally include cost sharing and profit sharing. Monsanto's collaboration agreements are performed with no guarantee of either technological or commercial success.

Monsanto has entered into various multi-year research, development, manufacturing and commercialization collaborations related to various activities including plant biotechnology and microbial solutions. Under these collaborations, Monsanto and the third parties participate in the R&D and/or manufacturing activities, and Monsanto generally has the primary responsibility for the commercialization of the collaboration products. The collaborations are accounted for in accordance with the Collaborative Arrangements topic of the ASC.

NOTE 5. RESTRUCTURING

Restructuring charges were recorded in the Statements of Consolidated Operations as follows:

	Year ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Cost of Goods Sold[1]	**$(25)**	$(67)	$(100)
Restructuring Charges[2]	**36**	(297)	(393)
Income from Continuing Operations Before Income Taxes	**$11**	$(364)	$(493)
Income Tax Provision	**1**	101	155
Net Income	**$12**	$(263)	$(338)

[1] The $25 million of restructuring charges in cost of goods sold for the fiscal year ended Aug. 31, 2017, is split by segment as follows: $4 million in Agricultural Productivity and $21 million in Seeds and Genomics. The $67 million of restructuring charges in cost of goods sold for the fiscal year ended Aug. 31, 2016, is split by segment as follows: $1 million in Agricultural Productivity and $66 million in Seeds and Genomics. The $100 million of restructuring charges in cost of goods sold is recorded to the Seeds and Genomics segment for the fiscal year ended Aug. 31, 2015.

[2] The net reversal of previously recognized expense of $36 million for the fiscal year ended Aug. 31, 2017, is split by segment as follows: $3 million in Agricultural Productivity and $33 million in Seeds and Genomics. The $297 million of restructuring charges for the fiscal year ended Aug. 31, 2016, is split by segment as follows: $36 million in Agricultural Productivity and $261 million in Seeds and Genomics. The $393 million of restructuring charges for the fiscal year ended Aug. 31, 2015, is split by segment as follows: $13 million in Agricultural Productivity and $380 million in Seeds and Genomics.

On Oct. 6, 2015, the company approved actions to realign resources to increase productivity, enhance competitiveness by delivering cost improvements and support long-term growth. On Jan. 5, 2016, the company approved additional actions which together with the Oct. 6, 2015, actions comprise the 2015 Restructuring Plan. Actions include streamlining and reprioritizing some commercial, enabling, supply chain and research and development efforts.

Cumulative pretax charges related to the 2015 Restructuring Plan are estimated to be $900 million to $965 million. Implementation of the 2015 Restructuring Plan is expected to be completed by the end of fiscal year 2018, and substantially all of the cash payments are expected to be made by the end of fiscal year 2018. These pretax charges are currently estimated to be comprised of the following categories: $325 million to $350 million in work force reductions, including severance and related benefits; $95 million to $115 million in facility closures / exit costs, including contract termination costs; $480 million to $500 million in asset impairments and write-offs related to property, plant and equipment, inventory and goodwill and other assets. These pretax charges are currently estimated to be incurred primarily by the Seeds and Genomics segment.

Notes to the Consolidated Financial Statements *(continued)*

The following tables display the net reversal of previously recognized expense of $11 million, pretax charges of $364 million and $493 million incurred by segment under the 2015 Restructuring Plan for the fiscal years ended Aug. 31, 2017, Aug. 31, 2016, and Aug. 31, 2015, respectively, as well as the cumulative pretax charges of $846 million under the 2015 Restructuring Plan.

	Year Ended Aug. 31, 2017			Year Ended Aug. 31, 2016			Year Ended Aug. 31, 2015		
(Dollars in millions)	Seeds and Genomics	Agricultural Productivity	Total	Seeds and Genomics	Agricultural Productivity	Total	Seeds and Genomics	Agricultural Productivity	Total
Work Force Reductions	**$(76)**	**$(5)**	**$(81)**	$179	$10	$189	$204	$13	$217
Facility Closures/Exit Costs	**19**	**5**	**24**	23	5	28	—	—	—
Asset Impairments and Write-offs:									
Property, plant and equipment	**31**	**1**	**32**	41	2	43	81	—	81
Inventory	**11**	**—**	**11**	42	—	42	51	—	51
Goodwill and other assets	**3**	**—**	**3**	42	20	62	144	—	144
Total Restructuring Charges, Net	**$(12)**	**$1**	**$(11)**	$327	$37	$364	$480	$13	$493

	Cumulative Amount through Aug. 31, 2017		
(Dollars in millions)	Seeds and Genomics	Agricultural Productivity	Total
Work Force Reductions	$307	$18	$325
Facility Closures/Exit Costs	42	10	52
Asset Impairments and Write-offs:			
Property, plant and equipment	153	3	156
Inventory	104	—	104
Goodwill and other assets	189	20	209
Total Restructuring Charges, Net	$795	$51	$846

The company's written human resource policies are indicative of an ongoing benefit arrangement with respect to severance packages. Benefits paid pursuant to an ongoing benefit arrangement are specifically excluded from the Exit or Disposal Cost Obligations topic of the ASC; therefore severance charges incurred in connection with the 2015 Restructuring Plan are accounted for when probable and estimable as required under the Compensation - Nonretirement Postemployment Benefits topic of the ASC. In addition, when the decision to commit to a restructuring plan requires a long-lived asset and finite-lived intangible asset impairment review, Monsanto evaluates such impairment issues under the Property, Plant and Equipment topic of the ASC.

The fiscal years ended Aug. 31, 2017, and Aug. 31, 2016, include the reversal of $112 million and $44 million, respectively, of previously recognized expense due to changes in estimates related to work force reductions. Monsanto did not reverse any restructuring expense in the fiscal year ended Aug. 31, 2015.

Notes to the Consolidated Financial Statements *(continued)*

The following table summarizes the activities related to the company's 2015 Restructuring Plan.

(Dollars in millions)	Work Force Reductions[1]	Facility Closures/Exit Costs[2]	Asset Impairments	Total
Restructuring charges recognized in fourth quarter fiscal year 2015	$217	$ —	$276	$493
Asset impairments and write-offs	—	—	(276)	(276)
Ending Liability as of Aug. 31, 2015	$217	$ —	$ —	$217
Net restructuring charges recognized in fiscal year 2016	189	28	147	364
Cash payments	(164)	(28)	—	(192)
Asset impairments and write-offs	—	—	(147)	(147)
Foreign currency impact	2	—	—	2
Ending Liability as of Aug. 31, 2016	$244	$ —	$ —	$244
Net restructuring charges recognized in fiscal year 2017	**(81)**	**24**	**46**	**(11)**
Cash payments	**(119)**	**(22)**	**—**	**(141)**
Asset impairments and write-offs	**—**	**—**	**(46)**	**(46)**
Ending Liability as of Aug. 31, 2017	**$44**	**$2**	**$ —**	**$46**

[1] The restructuring liability balance included $8 million and $17 million that were recorded in long-term restructuring reserves in the Statements of Consolidated Financial Position as of Aug. 31, 2017, and Aug. 31, 2016, respectively.
[2] The restructuring liability balance included $1 million that was recorded in long-term restructuring reserves in the Statement of Consolidated Financial Position as of Aug. 31, 2017.

NOTE 6. RECEIVABLES

The following table displays a roll forward of the allowance for doubtful trade receivables for fiscal years 2015, 2016 and 2017.

(Dollars in millions)	
Balance Aug. 31, 2014	$ 72
Additions — charged to expense	44
Other[1]	(57)
Balance Aug. 31, 2015	$ 59
Additions — charged to expense	82
Other[1]	(47)
Balance Aug. 31, 2016	$ 94
Additions — charged to expense	**100**
Write-Offs	**(30)**
Reclassifications to long-term	**(67)**
Other[2]	**(19)**
Balance Aug. 31, 2017	**$ 78**

[1] Includes reclassifications to long-term, write-offs, recoveries and foreign currency translation adjustments.
[2] Includes recoveries and foreign currency translation adjustments.

The company has financing receivables that represent long-term customer receivable balances related to past due accounts which are not expected to be collected within the current year. The long-term customer receivables were $398 million and $260 million with corresponding allowances for credit losses on these receivables of $277 million and $228 million, as of Aug. 31, 2017, and Aug. 31, 2016, respectively. These long-term customer receivable balances and the corresponding allowances are included in long-term receivables, net on the Statements of Consolidated Financial Position. For these long-term customer receivables, interest is no longer accrued when the receivable is determined to be delinquent and classified as long-term based on estimated timing of collection.

The following table displays a roll forward of the allowance for credit losses related to long-term customer receivables for fiscal years 2015, 2016 and 2017.

(Dollars in millions)	
Balance Aug. 31, 2014	$125
Incremental provision	9
Recoveries	(3)
Write-Offs	(28)
Other[1]	17
Balance Aug. 31, 2015	$120
Incremental provision	78
Recoveries	(2)
Write-Offs	(4)
Other[1]	36
Balance Aug. 31, 2016	$228
Incremental provision	**20**
Recoveries[2]	**(38)**
Write-Offs	**(2)**
Reclassifications from allowance for current receivables	**67**
Foreign currency translation adjustments	**2**
Balance Aug. 31, 2017	**$277**

[1] Includes reclassifications from the allowance for current receivables, write-offs and foreign currency translation adjustments.
[2] Recoveries were significantly higher in fiscal 2017 compared to fiscal 2016 and 2015, due to a one time significant recovery of previously recorded provisions related to the India cotton business.

Notes to the Consolidated Financial Statements *(continued)*

On an ongoing basis, the company evaluates credit quality of its financing receivables utilizing aging of receivables, collection experience and write-offs, as well as evaluating existing economic conditions, to determine if an allowance is necessary.

The following table sets forth Monsanto's gross trade receivables by geographic area as of Aug. 31, 2017, and Aug. 31, 2016, by significant customer concentrations:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Argentina	**$ 312**	$ 302
Asia-Pacific	**130**	113
Brazil	**215**	234
Canada	**32**	27
Europe-Africa	**640**	550
Mexico	**121**	147
United States	**731**	574
Other	**58**	73
Gross Trade Receivables	**2,239**	2,020
Less: Allowance for Doubtful Accounts	**(78)**	(94)
Trade Receivables, Net	**$2,161**	$1,926

NOTE 7. CUSTOMER FINANCING PROGRAMS

Monsanto participates in customer financing programs as follows:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Transactions that Qualify for Sales Treatment		
U.S. agreement to sell trade receivables[1]		
Outstanding balance	**$539**	$511
Maximum future payout under recourse provisions	**21**	19
European and Latin American agreements to sell trade receivables[2]		
Outstanding balance	**$107**	$ 60
Maximum future payout under recourse provisions	**27**	35
Agreements with Lenders[3]		
Outstanding balance	**$ 92**	$ 73
Maximum future payout under the guarantee	**52**	57

The gross amount of receivables sold under transactions that qualify for sales treatment are:

	Gross Amount of Receivables Sold		
	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Transactions that Qualify for Sales Treatment			
U.S. agreement to sell trade receivables[1]	**$637**	$511	$852
European and Latin American agreements to sell trade receivables[2]	**131**	96	165

(1) Monsanto has agreements in the United States to sell trade receivables, both with and without recourse, up to a maximum outstanding balance of $1.5 billion and to service such accounts. These receivables qualify for sales treatment under the Transfers and Servicing topic of the ASC and, accordingly, the proceeds are included in net cash provided by operating activities in the Statements of Consolidated Cash Flows. The liability for the guarantees for sales with recourse is recorded at an amount that approximates fair value, based upon the company's historical collection experience and a current assessment of credit exposure.

(2) Monsanto has various agreements in European and Latin American countries to sell trade receivables, both with and without recourse. These receivables qualify for sales treatment under the Transfers and Servicing topic of the ASC and, accordingly, the proceeds are included in net cash provided by operating activities in the Statements of Consolidated Cash Flows. The liability for the guarantees for sales with recourse is recorded at an amount that approximates fair value, based on the company's historical collection experience and a current assessment of credit exposure.

(3) Monsanto has additional agreements with lenders to establish programs that provide financing for select customers in the United States, Latin America and Europe. Monsanto provides various levels of recourse through guarantees of the accounts in the event of customer default. The term of the guarantee is equivalent to the term of the customer loans. The liability for the guarantees is recorded at an amount that approximates fair value, based on the company's historical collection experience with customers that participate in the program and a current assessment of credit exposure. If performance is required under the guarantee, Monsanto may retain amounts that are subsequently collected from customers.

In addition to the arrangements in the above table, Monsanto also participates in a financing program in Brazil that allows Monsanto to transfer up to 350 million Brazilian reais (approximately $111 million as of Aug. 31, 2017) for select customers in Brazil to a revolving financing program. Under the arrangement, a recourse provision requires Monsanto to cover the first credit losses within the program up to the amount of the company's investment. Credit losses above Monsanto's investment would be covered by senior interests in the entity by a reduction in the fair value of their mandatorily redeemable shares. The company evaluated its relationship with the entity under the guidance within the Consolidation topic of the ASC, and as a result, the entity has been consolidated. For further information on this topic, see Note 8 — Variable Interest Entities and Investments.

There were no significant recourse or non-recourse liabilities for all programs as of Aug. 31, 2017, and Aug. 31, 2016. There were no significant delinquent loans for all programs as of Aug. 31, 2017, and Aug. 31, 2016.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 8. VARIABLE INTEREST ENTITIES AND INVESTMENTS

Variable Interest Entities

On Oct. 19, 2016, Monsanto exited a financing program in Brazil that was recorded as a consolidated variable interest entity (''VIE''). On Nov. 4, 2016, Monsanto entered into a new financing program in Brazil that is recorded as a consolidated VIE. For the most part, the new and previous arrangements of the Brazil VIE consist of a revolving financing program that is funded by investments from the company and other third parties, primarily investment funds, and has been established to service Monsanto's customer receivables. Under the new arrangement, third parties, primarily investment funds, hold senior interests of 85 percent, and Monsanto holds the remaining 15 percent interest in the entity as of Aug. 31, 2017. Under the previous arrangement, as of Aug. 31, 2016, third parties, primarily investment funds, held senior interest of 89 percent, and Monsanto held the remaining 11 percent interest. Under the new arrangement, the senior interests held by third parties are mandatorily redeemable shares and are included in long-term debt in the Statement of Consolidated Financial Position as of as of Aug. 31, 2017 and were included in short-term debt in the Statement of Consolidated Financial Position as of Aug. 31, 2016.

Under the new arrangement, Monsanto is required to maintain an investment in the Brazil VIE of at least 11.1 percent and could be required to provide additional contributions to the Brazil VIE. Monsanto currently has no unfunded commitments to the Brazil VIE. Creditors have no recourse against Monsanto in the event of default by the Brazil VIE. The company's financial or other support provided to the Brazil VIE is limited to its investment. Even though Monsanto holds a subordinate interest in the Brazil VIE, the Brazil VIE was established to service transactions involving the company, and the company determines the receivables that are included in the revolving financing program. Therefore, the determination is that Monsanto has the power to direct the activities most significant to the economic performance of the Brazil VIE. As a result, the company is the primary beneficiary of the Brazil VIE, and the Brazil VIE has been consolidated in Monsanto's consolidated financial statements. The assets of the Brazil VIE may only be used to settle the obligations of the respective entity. Third-party investors in the Brazil VIE do not have recourse to the general assets of Monsanto. See Note 7 — Customer Financing Programs and Note 14 — Fair Value Measurements — for additional information.

Monsanto has entered into an agreement with a third party to establish an entity to focus on research and development (''R&D'') related to agricultural fungicides for agricultural applications. This entity is recorded as a consolidated VIE of Monsanto. Under the arrangement, Monsanto holds a call option to acquire the majority of the equity interests in the R&D VIE from the third-party owner. Monsanto funds the operations of the R&D VIE in return for additional equity interests or to retain the call option. The funding is provided in separate research phases if research milestones are met. The R&D VIE was established to perform agricultural-based R&D activities for the benefit of Monsanto, and Monsanto provides all funding of the R&D VIE's activities. Further, Monsanto has the power to direct the activities most significant to the R&D VIE. As a result, Monsanto is the primary beneficiary of the R&D VIE, and the R&D VIE is consolidated in Monsanto's consolidated financial statements. The third-party owner of the R&D VIE do not have recourse to the general assets of Monsanto beyond Monsanto's maximum exposure to loss at any given time relating to the R&D VIE.

Monsanto has an agreement with a related party to establish an entity to focus on research, development and commercialization of insect resistant hybrid cotton in India. This entity is recorded as a consolidated VIE of Monsanto. Under the arrangement, Monsanto performs substantially all of the VIE's activities, which are reimbursed by the VIE. Further, since this entity was formed with a Monsanto related party, it was determined that Monsanto is most closely associated with the VIE. As a result, Monsanto is the primary beneficiary of the VIE, and the VIE is consolidated in Monsanto's consolidated financial statements. The related-party owner of the VIE does not have recourse to the general assets of Monsanto beyond Monsanto's maximum exposure to loss at any given time relating to the VIE, unless Monsanto is required to indemnify the related-party owner as a result of a third-party claim for injury to a person or damage to property caused by Monsanto's activities as it relates to the VIE.

Monsanto enters into agreements with agents and dealers to distribute certain branded seed in the United States. Monsanto offers financing to agents and dealers that constitutes a variable interest as it exposes Monsanto to variability of the agent or dealer. Certain agents and dealers with these financing arrangements have been determined to be VIEs. Monsanto does not consolidate the agents or dealers as Monsanto is not the primary beneficiary, and any exposure to loss is limited to the amount of financing provided to the agent or dealer. The amount of Monsanto's exposure varies based on the seasonality of the business and is not material as of Aug. 31, 2017, and Aug. 31, 2016.

Monsanto enters into agreements with distributors and dealers to distribute certain branded seed in the United States. Monsanto offers distributors and dealers the right of return that exposes Monsanto to variability and constitutes a variable interest in certain distributors and dealers. Certain distributors and dealers with these arrangements have been determined to be VIEs. Monsanto does not consolidate the distributors and dealers with these arrangements as Monsanto is not the primary beneficiary, and any exposure to loss is limited to the amount of the variable interest in the entity. The amount of Monsanto's exposure varies based on the seasonality of the business and is not material as of Aug. 31, 2017, and Aug. 31, 2016.

Notes to the Consolidated Financial Statements *(continued)*

In July 2017, Monsanto entered into an agreement with a third party to establish an entity to focus on the sale of industrial, ornamental, and turf non-selective agricultural herbicides. Monsanto has provided an uncustomary indemnification to the third party that provides Monsanto the option under specified conditions to dissolve the entity, terminate all commercial agreements of the entity or receive all interest in the entity. Monsanto has determined the entity to be a VIE. Monsanto does not consolidate the entity as Monsanto is not the primary beneficiary. The amount of Monsanto's exposure to loss related to the uncustomary indemnification is limited to approximately $29 million as of Aug. 31, 2017. Additionally, Monsanto has provided an indemnification to the third party and newly formed legal entity related to specified product claims. The amount of Monsanto's exposure varies based upon the third party and newly formed legal entity's losses related to such product claims and is not material as of Aug. 31, 2017.

Equity Method and Cost Basis Investments

Monsanto has equity method and cost basis investments recorded in other assets in the Statements of Consolidated Financial Position. Due to the nature of the cost basis investments, the fair market value is not readily determinable. These investments are reviewed for impairment indicators on a quarterly basis.

Effective June 15, 2016, the company signed agreements to sell certain manufacturing assets and contribute to a newly-formed joint venture certain intellectual property, real property and tangible assets related to the company's sorghum business. These agreements created a global joint venture in sorghum breeding that expanded the commercial and technology reach of the elite germplasm and remain focused on delivering important product offerings for sorghum growers so that they can continue to benefit from new innovations in the crop. Monsanto has a 40 percent membership interest, and Remington Holding, LLC has the remaining 60 percent membership interest of Innovative Seed Solutions, LLC (the ''Joint Venture''). Monsanto sources sorghum products derived from the Joint Venture and offers these products through certain branded dealer networks globally. Monsanto received a cash payment of approximately $110 million and minority interest in the newly-formed Joint Venture, which combined resulted in a gain of $157 million in the fourth quarter of fiscal year 2016 recorded in other (income) expense, net in the Statements of Consolidated Operations.

For such investments that were accounted for under the equity method and cost basis included in other assets in the Statements of Consolidated Financial Position, the amounts are summarized in the following table:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Equity Method Investments	**$166**	$152
Cost Basis Investments	**116**	94
Total	**$282**	$246

NOTE 9. INVENTORY

Components of inventory are:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Finished Goods	**$1,477**	$1,404
Goods In Process	**1,446**	1,489
Raw Materials and Supplies	**561**	498
Inventory at FIFO Cost	**3,484**	3,391
Excess of FIFO over LIFO Cost	**(144)**	(150)
Total	**$3,340**	$3,241

Inventory obsolescence reserves are utilized as valuation accounts and effectively establish a new cost basis. The following table displays a roll forward of the inventory obsolescence reserve for fiscal years 2015, 2016 and 2017.

(Dollars in millions)	
Balance Aug. 31, 2014	$ 415
Additions — charged to expense	390
Deductions and other[1]	(371)
Balance Aug. 31, 2015	$ 434
Additions — charged to expense	410
Deductions and other[1]	(376)
Balance Aug. 31, 2016	$ 468
Additions — charged to expense	**294**
Deductions and other[1]	**(281)**
Balance Aug. 31, 2017	**$ 481**

[1] Deductions and other includes disposals and foreign currency translation adjustments.

As part of Monsanto's 2015 Restructuring Plan, inventory impairment charges of $11 million, $42 million and $51 million were recorded in fiscal year 2017, 2016 and 2015, respectively. See Note 5 — Restructuring — for additional information.

NOTE 10. PROPERTY, PLANT AND EQUIPMENT

Components of property, plant and equipment are as follows:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Land and Improvements	**$ 677**	$ 645
Buildings and Improvements	**2,358**	2,225
Machinery and Equipment	**6,210**	5,871
Computer Software	**1,166**	1,008
Construction In Progress and Other	**1,820**	1,367
Total Property, Plant and Equipment	**12,231**	11,116
Less: Accumulated Depreciation	**6,301**	5,885
Property, Plant and Equipment, Net	**$ 5,930**	$ 5,231

Gross assets acquired under capital leases of $20 million and $39 million are included primarily in machinery and equipment as of Aug. 31, 2017, and Aug. 31, 2016, respectively. See Note 13 — Debt and Other Credit Arrangements — and Note 24 — Commitments and Contingencies — for related capital lease obligations.

As part of Monsanto's 2015 Restructuring Plan, asset impairment charges of $32 million and $43 million were recorded in fiscal years 2017 and 2016, respectively. These impairment charges primarily were related to machinery and equipment. See Note 5 — Restructuring — for additional information.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 11. GOODWILL AND OTHER INTANGIBLE ASSETS

The fiscal year 2017 and 2016 annual goodwill impairment tests were performed as of Mar. 1, 2017, and 2016, respectively, and no indications of goodwill impairment existed as of either date. Goodwill is tested for impairment at least annually, or more frequently if events or circumstances indicate a potential impairment. As of Aug. 31, 2017, Monsanto considered potential triggering events or circumstances impacting goodwill and determined there was no impairment. As of fiscal year 2017, accumulated goodwill impairment charges since the adoption of FASB Statement No. 142, Goodwill and Other Intangible Assets (codified in ASC 350) in 2002 were $2 billion. The company has not had an impairment charge since the adoption of ASC 350.

Changes in the net carrying amount of goodwill for fiscal years 2016 and 2017, by segment, are as follows:

(Dollars in millions)	Seeds and Genomics	Agricultural Productivity	Total
Balance Aug. 31, 2015	$4,004	$57	$4,061
Reclass to assets held for sale	(41)	—	(41)
Effect of foreign currency translation and other adjustments	4	(4)	—
Balance Aug. 31, 2016	$3,967	$53	$4,020
Effect of foreign currency translation and other adjustments	**72**	**(4)**	**68**
Balance Aug. 31, 2017	**$4,039**	**$49**	**$4,088**

In fiscal year 2017, goodwill primarily increased due to foreign currency translation and finalization of the goodwill allocation related to the sale of the Precision Planting equipment business. In fiscal year 2016, goodwill decreased due to the reclass to assets held for sale for the Precision Planting equipment business. See Note 1 — Background and Basis of Presentation — for further information.

Information regarding the company's other intangible assets is as follows:

	As of Aug. 31, 2017			As of Aug. 31, 2016		
(Dollars in millions)	**Carrying Amount**	**Accumulated Amortization**	**Net**	Carrying Amount	Accumulated Amortization	Net
Acquired Germplasm	**$1,077**	**$(814)**	**$263**	$1,070	$(778)	$292
Acquired Intellectual Property	**1,079**	**(671)**	**408**	1,042	(593)	449
Trademarks	**335**	**(165)**	**170**	334	(152)	182
Customer Relationships	**291**	**(228)**	**63**	301	(223)	78
Other	**68**	**(40)**	**28**	65	(33)	32
Total Other Intangible Assets, Finite Lives	**$2,850**	**$(1,918)**	**$932**	$2,812	$(1,779)	$1,033
In Process Research & Development, Indefinite Lives	**92**	**—**	**92**	92	—	92
Total Other Intangible Assets	**$2,942**	**$(1,918)**	**$1,024**	$2,904	$(1,779)	$1,125

The decrease from Aug. 31, 2016, to Aug. 31, 2017, in total other intangible assets, net is primarily related to amortization expense and intangible impairments. See Note 14 — Fair Value Measurements and Note 5 — Restructuring — for further information on the intangible impairments.

Total amortization expense of total other intangible assets was $144 million in fiscal year 2017, $116 million in fiscal year 2016 and $143 million in fiscal year 2015.

The estimated intangible asset amortization expense for each of the five succeeding fiscal years is as follows:

(Dollars in millions)	Amount
2018	$121
2019	107
2020	105
2021	105
2022	101

Notes to the Consolidated Financial Statements *(continued)*

NOTE 12. INCOME TAXES

The components of income from continuing operations before income taxes are:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
United States	**$1,720**	$1,457	$2,092
Outside United States	**1,166**	534	1,069
Total	**$2,886**	$1,991	$3,161

The components of income tax provision from continuing operations are:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Current:			
U.S. Federal	**$236**	$393	$ 675
U.S. State	**25**	43	69
Outside United States	**319**	231	408
Total Current	**$580**	$667	$1,152
Deferred:			
U.S. Federal	**81**	(109)	(91)
U.S. State	**4**	(7)	(2)
Outside United States	**(39)**	144	(195)
Total Deferred	**46**	28	(288)
Total	**$626**	$695	$ 864

Factors causing Monsanto's income tax provision from continuing operations to differ from the U.S. federal statutory rate are:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
U.S. Federal Statutory Rate	**$1,010**	$ 697	$1,106
U.S. Domestic Manufacturing Deduction	**(41)**	(64)	(87)
U.S. R&D Tax Credit	**(34)**	(34)	(30)
U.S. State Income Taxes	**27**	28	39
Lower Taxes on Foreign Operations	**(409)**	(243)	(209)
Valuation Allowances	**93**	308	13
Adjustment for Unrecognized Tax Benefits	**—**	(6)	(4)
Other	**(20)**	9	36
Income Tax Provision	**$ 626**	$ 695	$ 864

Deferred income tax balances are related to:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Net Operating Loss and Other Carryforwards	**$ 608**	$ 438
Employee Fringe Benefits	**311**	331
Royalties	**220**	189
Restructuring and Impairment Reserves	**127**	155
Inventories	**93**	91
Allowance for Doubtful Accounts	**85**	77
Environmental and Litigation Reserves	**82**	70
Other	**318**	407
Valuation Allowance	**(394)**	(346)
Total Deferred Tax Assets	**$1,450**	$1,412
Property, Plant and Equipment	**667**	533
Intangibles	**411**	334
Total Deferred Tax Liabilities	**1,078**	867
Net Deferred Tax Assets	**$ 372**	$ 545

Management regularly assesses the likelihood that deferred tax assets will be recovered from future taxable income. To the extent management believes it is more likely than not that a deferred tax asset will not be realized, a valuation allowance is established.

As of Aug. 31, 2017, and Aug. 31, 2016, Monsanto had available approximately $587 million and $696 million, respectively, of net operating loss carryforwards (''NOLs''), most of which relates to Brazilian operations where NOLs have no expiration date. Management believes it is more likely than not that the company will realize these deferred tax assets in Brazil.

As of Aug. 31, 2017, and Aug. 31, 2016, Monsanto had approximately $328 million and $281 million, respectively, of deferred tax assets in Argentina, primarily related to accrued royalties for which a tax benefit will be realized when paid. As a result of losses generated in Argentina in the current and prior years, the company determined it was not more likely than not to utilize these deferred tax assets and established a valuation allowance against the entire balance of these deferred tax assets in Argentina.

As of Aug. 31, 2017, and Aug. 31, 2016, Monsanto had approximately $232 million and $97 million, respectively, of deferred tax assets in the United States related to foreign tax credits that have a ten year carryforward period that expires from 2025 to 2027. Management believes it is more likely than not that the company will realize these deferred tax assets in the United States.

Income taxes and remittance taxes have not been recorded on approximately $4.2 billion of undistributed earnings of foreign operations of Monsanto because Monsanto intends to reinvest those earnings indefinitely. It is not practicable to estimate the income tax liability that might be incurred if such earnings were remitted to the United States.

Monsanto operates in various countries throughout the world and, as a result, files income tax returns in numerous jurisdictions. These tax returns are subject to examination by

Notes to the Consolidated Financial Statements *(continued)*

various federal, state and local tax authorities. Due to the nature of the examinations, it may take several years before they are completed. Management regularly assesses the risk of the company's tax return filing positions for all open years. For Monsanto's major tax jurisdictions, the tax years that remain subject to examination are shown below:

Jurisdiction	
U.S. Federal	2014-2017
U.S. State	2000-2017
Argentina	2001-2017
Brazil	2007-2017

As of Aug. 31, 2017, Monsanto had total unrecognized tax benefits of $120 million, of which $100 million would favorably impact the effective tax rate if recognized. As of Aug. 31, 2016, Monsanto had total unrecognized tax benefits of $123 million, of which $90 million would favorably impact the effective tax rate if recognized.

Accrued interest and penalties included in other liabilities in the Statements of Consolidated Financial Position were $34 million and $24 million as of Aug. 31, 2017, and Aug. 31, 2016, respectively. Monsanto recognizes accrued interest and penalties related to unrecognized tax benefits as a component of income tax provision within the Statements of Consolidated Operations. For the year ended Aug. 31, 2017, the company recognized $1 million of income tax expense for interest and penalties. For the year ended Aug. 31, 2016, the company recognized less than $1 million of income tax benefit for interest and penalties. For the year ending Aug. 31, 2015, the company recognized $6 million of income tax benefit for interest and penalties.

A reconciliation of the beginning and ending balance of unrecognized tax benefits is as follows:

(Dollars in millions)	**2017**	2016
Balance Sept. 1	**$123**	$135
Increases for prior year tax positions	**35**	17
Decreases for prior year tax positions	**(33)**	(11)
Increases for current year tax positions	**9**	8
Settlements	**(2)**	(1)
Lapse of statute of limitations	**(11)**	(23)
Foreign currency translation	**(1)**	(2)
Balance Aug. 31	**$120**	$123

If the company's assessment of unrecognized tax benefits is not representative of actual outcomes, the company's consolidated financial statements could be significantly impacted in the period of settlement or when the statute of limitations expires. Management estimates it is reasonably possible that the total amount of unrecognized tax benefits could decrease by as much as $50 million within the next 12 months, primarily as a result of the resolution of audits currently in progress in several jurisdictions involving issues common to large multinational corporations and the lapsing of the statute of limitations in multiple jurisdictions.

NOTE 13. DEBT AND OTHER CREDIT ARRANGEMENTS

Monsanto has a $3 billion credit facility agreement that provides a senior unsecured revolving credit facility through Mar. 27, 2020. This facility was initiated to be used for general corporate purposes, which may include working capital requirements, acquisitions, capital expenditures, refinancing and support of commercial paper borrowings. The agreement also provides for euro, pounds sterling and yen-denominated loans, and for letters of credit and swingline borrowings, and allows Monsanto to designate certain subsidiaries to borrow with a company guarantee. Covenants under this credit facility restrict maximum borrowings. There are no compensating balance requirements, but the facility is subject to various fees, which are based on the company's credit ratings. As of Aug. 31, 2017, Monsanto was in compliance with all financial debt covenants, and there were no outstanding borrowings under this credit facility.

In April 2016, Monsanto filed a shelf registration with the SEC (''2016 shelf registration'') that allows the company to issue a maximum aggregate amount of $6 billion of debt, equity and hybrid offerings. The 2016 shelf registration expires in April 2019.

Under the terms of the Merger Agreement, Monsanto is subject to certain restrictions on its ability to incur additional indebtedness.

Short-Term Debt

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Current Portion of Long-Term Debt	**$806**	$902
Mandatorily Redeemable Shares of Brazil VIE	**—**	113
Notes Payable to Banks	**64**	72
Commercial Paper	**—**	500
Total Short-Term Debt	**$870**	$1,587

The fair value of total short-term debt was $877 million and $1,589 million as of Aug. 31, 2017, and Aug. 31, 2016, respectively. The weighted average interest rate on notes payable to banks and commercial paper was three percent and two percent as of Aug. 31, 2017, and Aug. 31, 2016, respectively.

As of Aug. 31, 2017, the company did not have any commercial paper borrowings outstanding, but it had short-term borrowings to support ex-U.S. operations throughout the year, which had weighted-average interest rates as indicated above. As of Aug. 31, 2016, the company had commercial paper borrowings outstanding of $500 million.

In October 2016, Monsanto entered into a $1 billion delayed draw term loan facility that matures the earlier of October 2019 or the consummation of the Merger with Bayer. Borrowings under the facility were $500 million as of Aug. 31, 2017, and were included in current portion of long-term debt. Proceeds were used for general corporate purposes.

Notes to the Consolidated Financial Statements *(continued)*

Long-Term Debt

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
5.125% Senior Notes, Due 2018[1]	**$ —**	$ 299
1.850% Senior Notes, Due 2018[1]	**299**	299
2.125% Senior Notes, Due 2019[1]	**498**	498
2.750% Senior Notes, Due 2021[1]	**497**	496
2.200% Senior Notes, Due 2022[1]	**249**	249
3.375% Senior Notes, Due 2024[1]	**745**	744
2.850% Senior Notes, Due 2025[1]	**297**	297
5.500% Senior Notes, Due 2025[1]	**292**	289
4.200% Senior Notes, Due 2034[1]	**493**	492
5.500% Senior Notes, Due 2035[1]	**393**	393
5.875% Senior Notes, Due 2038[1]	**246**	246
3.600% Senior Notes, Due 2042[1]	**248**	247
4.650% Senior Notes, Due 2043[1]	**297**	297
4.400% Senior Notes, Due 2044[1]	**983**	982
4.300% Senior Notes, Due 2045[1]	**361**	361
3.950% Senior Notes, Due 2045[1]	**494**	493
4.700% Senior Notes, Due 2064[1]	**735**	735
Mandatorily Redeemable Shares of Brazil VIE	**104**	—
Other (including Capital Leases)	**23**	36
Total Long-Term Debt	**$7,254**	$7,453

[1] Amounts are net of unamortized discounts and debt issuance costs.

The fair value of total long-term debt was $7,603 million and $7,834 million as of Aug. 31, 2017, and Aug. 31, 2016, respectively. The interest rate on the mandatorily redeemable shares of the Brazil VIE is a variable rate. See Note 14 — Fair Value Measurements — for additional information regarding mandatorily redeemable shares of the Brazil VIE.

In April 2015, Monsanto issued $300 million of 2.85% Senior Notes due in 2025 and $500 million of 3.95% Senior Notes due in 2045. In January 2015, Monsanto issued $365 million of 4.30% Senior Notes due in 2045. The net proceeds from the issuances were used for general corporate purposes, which may have included share repurchases and capital expenditures.

The information regarding interest expense below reflects Monsanto's interest expense on debt, mandatorily redeemable shares, customer financing and the amortization of debt issuance costs and interest rate swaps:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Interest Cost Incurred	**$496**	$468	$460
Less: Capitalized on Construction	**44**	32	27
Interest Expense	**$452**	$436	$433

NOTE 14. FAIR VALUE MEASUREMENTS

Monsanto determines the fair market value of its financial assets and liabilities based on quoted market prices, estimates from brokers and other appropriate valuation techniques. The company uses the fair value hierarchy established in the Fair Value Measurements and Disclosures topic of the ASC, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The hierarchy contains three levels as follows, with Level 3 representing the lowest level of input.

Level 1 — Values based on unadjusted quoted market prices in active markets that are accessible at the measurement date for identical assets and liabilities.

Level 2 — Values based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, discounted cash flow models, or other model-based valuation techniques adjusted, as necessary, for credit risk.

Level 3 — Values generated from model-based techniques that use significant assumptions not observable in the market. These unobservable assumptions would reflect our own estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques could include use of option pricing models, discounted cash flow models and similar techniques.

Notes to the Consolidated Financial Statements *(continued)*

The following tables set forth by level Monsanto's assets and liabilities disclosed at fair value on a recurring basis as of Aug. 31, 2017, and Aug. 31, 2016. As required by the Fair Value Measurements and Disclosures topic of the ASC, assets and liabilities are classified in their entirety based on the lowest level of input that is a significant component of the fair value measurement. Monsanto's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the classification of fair value assets and liabilities within the fair value hierarchy levels.

	Fair Value Measurements at Aug. 31, 2017, Using			
(Dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**Net Balance**
Assets at Fair Value:				
Cash equivalents	**$1,034**	**$ —**	**$ —**	**$1,034**
Short-term investments	**8**	**—**	**—**	**8**
Equity securities	**10**	**—**	**—**	**10**
Derivative assets related to:				
Foreign currency	**—**	**10**	**—**	**10**
Commodity contracts	**3**	**7**	**—**	**10**
Total Assets at Fair Value	**$1,055**	**$ 17**	**$ —**	**$1,072**
Liabilities at Fair Value:				
Short-term debt instruments[1]	**—**	**877**	**—**	**877**
Long-term debt instruments[1]	**—**	**7,499**	**104**	**7,603**
Derivative liabilities related to:				
Foreign currency	**—**	**16**	**—**	**16**
Commodity contracts	**7**	**6**	**—**	**13**
Total Liabilities at Fair Value	**$ 7**	**$8,398**	**$104**	**$8,509**

[1] Debt instruments, excluding mandatorily redeemable shares, are not recorded at fair value on a recurring basis; however, they are measured at fair value for disclosure purposes, as required by the Fair Value Measurements and Disclosures topic of the ASC.

	Fair Value Measurements at Aug. 31, 2016, Using			
(Dollars in millions)	Level 1	Level 2	Level 3	Net Balance
Assets at Fair Value:				
Cash equivalents	$1,081	$ —	$ —	$1,081
Short-term investments	60	—	—	60
Equity securities	13	—	—	13
Derivative assets related to:				
Foreign currency	—	10	—	10
Commodity contracts	9	9	—	18
Total Assets at Fair Value	$1,163	$ 19	$ —	$1,182
Liabilities at Fair Value:				
Short-term debt instruments[1]	$ —	$1,476	$113	$1,589
Long-term debt instruments[1]	—	7,834	—	7,834
Derivative liabilities related to:				
Foreign currency	—	15	—	15
Commodity contracts	32	20	—	52
Interest rate contracts	—	41	—	41
Total Liabilities at Fair Value	$ 32	$9,386	$113	$9,531

[1] Debt instruments, excluding mandatorily redeemable shares, are not recorded at fair value on a recurring basis; however, they are measured at fair value for disclosure purposes, as required by the Fair Value Measurements and Disclosures topic of the ASC.

Notes to the Consolidated Financial Statements *(continued)*

The company's derivative contracts are measured at fair value, including forward commodity purchase and sale contracts, exchange-traded commodity futures and option contracts and over-the-counter (''OTC'') instruments related primarily to agricultural commodities, energy and raw materials, interest rates and foreign currencies. Exchange-traded futures and options contracts are valued based on unadjusted quoted prices in active markets and are classified as Level 1. Fair value for forward commodity purchase and sale contracts is estimated based on exchange-quoted prices adjusted for differences in local markets. These differences are generally determined using inputs from broker or dealer quotations or market transactions in either the listed or OTC markets and are classified as Level 2. Interest rate contracts consist of interest rate swaps measured using broker or dealer quoted prices. When observable inputs are available for substantially the full term of the contract, it is classified as Level 2. Based on historical experience with the company's suppliers and customers, the company's own credit risk and knowledge of current market conditions, the company does not view nonperformance risk to be a significant input to the fair value for the majority of its forward commodity purchase and sale contracts. The effective portions of changes in the fair value of derivatives designated as cash flow hedges are recognized in the Statements of Consolidated Financial Position as a component of accumulated other comprehensive loss until the hedged items are recorded in earnings or it is probable the hedged transaction will no longer occur. Changes in the fair value of derivatives are recognized in the Statements of Consolidated Operations as a component of net sales, cost of goods sold and other (income) expense, net.

The company's short-term investments may consist of cash which is contractually restricted as to withdrawal or usage. The company's equity securities consist of publicly traded equity investments. Publicly traded equity investments are valued using quoted market prices and are classified as Level 1. Contractually restricted cash may be held in an interest bearing account measured using prevailing interest rates and is classified as Level 1. Short-term debt instruments are classified as Level 2. The company's long-term debt securities are classified as Level 2 and valued using broker or dealer quoted prices with a maturity greater than one year.

Short-term debt instruments may consist of commercial paper, current portion of long-term debt, borrowings under the delayed draw term loan facility and notes payable to banks. Commercial paper, notes payables to banks and borrowings under the delayed draw term loan facility are recorded at amortized cost in the Statements of Consolidated Financial Position, which approximates fair value. Current portion of long-term debt is measured at fair value for disclosure purposes and determined based on current market yields for Monsanto's debt traded in the secondary market.

Long-term debt was measured at fair value for disclosure purposes and determined based on current market yields for Monsanto's debt traded in the secondary market (Level 2 measurement). Long-term debt includes mandatorily redeemable shares as of Aug. 31, 2017. Mandatorily redeemable shares are recorded in the Statements of Consolidated Financial Position at fair value, which represents the amount of cash the consolidated variable interest entity would pay if settlement occurred as of the respective reporting date. Fair value of the mandatorily redeemable shares of the variable interest entity is calculated using observable and unobservable inputs from an interest rate market in Brazil and stated contractual terms (a Level 3 measurement). See Note 13 — Debt and Other Credit Arrangements — for additional disclosures. Accretion expense is included in the Statements of Consolidated Operations as interest expense.

For the periods ended Aug. 31, 2017, and Aug. 31, 2016, the company had no transfers between Level 1, Level 2 and Level 3. Monsanto does not have any assets with fair value determined using Level 3 inputs for the years ended Aug. 31, 2017, and Aug. 31, 2016. The following table summarizes the change in fair value of the Level 3 short-term debt instruments for the year ended Aug. 31, 2017.

(Dollars in millions)	
Balance Aug. 31, 2016[1]	$113
Redemption of mandatorily redeemable shares	**(103)**
Accretion expense	**2**
Payments	**(7)**
Effect of foreign currency translation adjustments	**(5)**
Balance Aug. 31, 2017	**$ —**

[1] Includes 350,000 mandatorily redeemable shares outstanding with a par value of 1,000 Brazilian reais (approximately $309) as of Aug. 31, 2016.

The following table summarizes the change in fair value of the Level 3 long-term debt instruments for the year ended Aug. 31, 2017.

(Dollars in millions)	
Balance Aug. 31, 2016	$ —
Issuance of mandatorily redeemable shares	**93**
Accretion expense	**9**
Payments	**(5)**
Effect of foreign currency translation adjustments	**7**
Balance Aug. 31, 2017[1]	**$104**

[1] Includes 315,000 mandatorily redeemable shares outstanding with a par value of 1,000 Brazilian reais (approximately $318) as of Aug. 31, 2017.

There were no significant measurements of liabilities to their implied fair value on a nonrecurring basis during fiscal years 2017, 2016 and 2015.

Significant measurements during fiscal years 2017, 2016 and 2015 of assets to their implied fair value on a nonrecurring basis were as follows:

Property, Plant and Equipment Net: In fiscal year 2017, property, plant and equipment within the Seeds and Genomics segment with a net book value of $32 million was written down to its implied fair value estimate of $13 million, resulting in an impairment charge of $19 million, with $6 million included in cost

of goods sold and $13 million included in restructuring charges in the Statement of Consolidated Operations. The implied fair value calculations were performed using a discounted cash flow model (a Level 3 measurement). See Note 5 — Restructuring — for additional disclosures.

In fiscal year 2016, property, plant and equipment within the Seeds and Genomics segment with a net book value of $67 million was written down to its implied fair value estimate of $26 million, resulting in an impairment charge of $41 million, with $16 million included in cost of goods sold and $25 million included in restructuring charges in the Statement of Consolidated Operations. The implied fair value calculations were performed using a discounted cash flow model (a Level 3 measurement). See Note 5 — Restructuring — for additional disclosures.

In fiscal year 2015, property, plant and equipment within the Seeds and Genomics segment with a net book value of $131 million was written down to its initial fair value estimate of $50 million, resulting in an impairment charge of $81 million, with $49 million included in cost of goods sold and $32 million included in restructuring charges in the Statement of Consolidated Operations. The initial fair value calculations were performed using a discounted cash flow model (a Level 3 measurement). See Note 5 — Restructuring — for additional disclosures.

Other Intangible Assets, Net: In fiscal year 2016, other intangible assets within the Seeds and Genomics segment with a net book value of $19 million were written down to their implied fair value of less than $1 million, resulting in an impairment charge of $19 million, with $19 million included in restructuring charges in the Statement of Consolidated Operations. The implied fair value calculations were performed using a discounted cash flow model (a Level 3 measurement). See Note 5 — Restructuring — for additional disclosures.

In fiscal year 2016, other intangible assets within the Agricultural Productivity segment with a net book value of $20 million were written down to their implied fair value of less than $1 million, resulting in an impairment charge of $20 million, with $20 million included in restructuring charges in the Statement of Consolidated Operations. The implied fair value calculations were performed using a discounted cash flow model (a Level 3 measurement). See Note 5 — Restructuring — for additional disclosures.

In fiscal year 2015, other intangible assets within the Seeds and Genomics segment with a net book value of $71 million were written down to their implied fair value of less than $1 million, resulting in an impairment charge of $71 million, with $71 million included in restructuring charges in the Statement of Consolidated Operations. The implied fair value calculations were performed using a discounted cash flow model (a Level 3 measurement). See Note 5 — Restructuring — for additional disclosures.

The recorded amounts of cash, trade receivables, miscellaneous receivables, third-party guarantees, accounts payable, grower production accruals, accrued marketing programs and miscellaneous short-term accruals approximate their fair values as of Aug. 31, 2017, and Aug. 31, 2016.

Management is ultimately responsible for all fair values presented in the company's consolidated financial statements. The company performs analysis and review of the information and prices received from third parties to ensure that the prices represent a reasonable estimate of fair value. This process involves quantitative and qualitative analysis. As a result of the analysis, if the company determines there is a more appropriate fair value based upon the available market data, the price received from the third party is adjusted accordingly.

NOTE 15. FINANCIAL INSTRUMENTS

Cash Flow Hedges

The company uses foreign currency options and foreign currency forward contracts as hedges of anticipated sales or purchases denominated in foreign currencies. The company enters into these contracts to protect itself against the risk that the eventual net cash flows will be adversely affected by changes in exchange rates.

Monsanto's commodity price risk management strategy is to use derivative instruments to minimize significant unanticipated earnings fluctuations that may arise from volatility in commodity prices. Price fluctuations in commodities, mainly in corn and soybeans, can cause the actual prices paid to production growers for corn and soybean seeds to differ from anticipated cash outlays. Monsanto generally uses commodity futures and options contracts to manage these risks. Monsanto's energy and raw material risk management strategy is to use derivative instruments to minimize significant unanticipated manufacturing cost fluctuations that may arise from volatility in natural gas, diesel and ethylene prices.

Monsanto's interest rate risk management strategy is to use derivative instruments, such as forward-starting interest rate swaps and option contracts, to minimize significant unanticipated earnings fluctuations that may arise from volatility in interest rates of the company's borrowings and to manage the interest rate sensitivity of its debt.

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is reported as a component of accumulated other comprehensive loss and reclassified into earnings in the period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

The maximum term over which the company is hedging exposures to the variability of cash flow (for all forecasted transactions) is 12 months for foreign currency hedges and 27 months for commodity hedges. During the next 12 months, a

Notes to the Consolidated Financial Statements *(continued)*

pretax net loss of approximately $26 million is expected to be reclassified from accumulated other comprehensive loss into earnings. A pretax loss of $37 million was reclassified into other (income) expense, net as a result of the discontinuance of an interest rate hedge during fiscal year 2017, because it was probable the original forecasted transaction would not occur by the end of the originally specified time period. A pretax loss of less than $1 million was reclassified into cost of goods sold in the Statement of Consolidated Operations during fiscal year 2017 as a result of the discontinuance of foreign currency cash flow hedges because it was probable the original forecasted transactions would not occur by the end of the originally specified time period. A pretax loss of less than $1 million and a pretax loss of $2 million during fiscal years 2016 and 2015, respectively, was reclassified into cost of goods sold in the Statements of Consolidated Operations as a result of the discontinuance of cash flow hedges because it was probable that the original forecasted transaction would not occur by the end of the originally specified time period.

Fair Value Hedges

The company uses commodity futures, forwards and options contracts as fair value hedges to manage the value of its soybean inventory and other assets. For derivative instruments that are designated and qualify as fair value hedges, both the gain or loss on the derivative and the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings. No fair value hedges were discontinued during fiscal years 2017, 2016 or 2015.

Derivatives Not Designated as Hedging Instruments

The company uses foreign currency contracts to hedge the effects of fluctuations in exchange rates on foreign currency denominated third-party and intercompany receivables and payables. Both the gain or loss on the derivative and the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings.

The company uses commodity option contracts to hedge anticipated cash payments to growers in Mexico, which can fluctuate with changes in commodity prices. Because these option contracts do not meet the provisions specified by the Derivatives and Hedging topic of the ASC, they do not qualify for hedge accounting treatment. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

To reduce credit exposure in Latin America, Monsanto collects payments on certain customer accounts in grain. Such payments in grain are negotiated at or near the time Monsanto's products are sold to the customers and are valued at the prevailing grain commodity prices. By entering into forward sales contracts related to grain, Monsanto mitigates the commodity price exposure from the time a contract is signed with a customer until the time a grain merchant collects the grain from the customer on Monsanto's behalf. The forward sales contracts do not qualify for hedge accounting treatment under the Derivatives and Hedging topic of the ASC. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

Monsanto uses interest rate contracts to minimize the variability of forecasted cash flows arising from the company's consolidated VIE in Brazil. The interest rate contracts do not qualify for hedge accounting treatment under the Derivatives and Hedging Topic of the ASC. Accordingly, the gain or loss on these derivatives is recognized in current earnings.

Financial instruments are neither held nor issued by the company for trading purposes.

The notional amounts of the company's derivative instruments outstanding as of Aug. 31, 2017, and Aug. 31, 2016, are as follows:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Derivatives Designated as Hedges:		
Foreign exchange contracts	**$ 453**	$ 388
Commodity contracts	**430**	484
Interest rate contracts	**—**	150
Total Derivatives Designated as Hedges	**$ 883**	$1,022
Derivatives Not Designated as Hedges:		
Foreign exchange contracts	**$2,133**	$1,096
Commodity contracts	**189**	223
Interest rate contracts	**21**	116
Total Derivatives Not Designated as Hedges	**$2,343**	$1,435

Notes to the Consolidated Financial Statements *(continued)*

The net presentation of the company's derivative instruments outstanding is as follows:

	As of Aug. 31, 2017						
(in millions)	Gross Amounts Recognized	Gross Amounts Offset in the Statement of Consolidated Financial Position	Net Amounts Included in the Statement of Consolidated Financial Position	Collateral Pledged	Net Amounts Reported in the Statement of Consolidated Financial Position	Other Items Included in the Statement of Consolidated Financial Position	Statement of Consolidated Financial Position Balance
Asset Derivatives:							
Other current assets							
Derivatives designated as hedges:							
Commodity contracts[1]	**$2**	**$(7)**	**$(5)**	**$5**	**$ —**		
Derivatives not designated as hedges:							
Commodity contracts	**6**	**—**	**6**	**—**	**6**		
Foreign exchange contracts	**10**	**—**	**10**	**—**	**10**		
Total other current assets	**18**	**(7)**	**11**	**5**	**16**	**$244**	**$260**
Other assets							
Derivatives designated as hedges:							
Commodity contracts	**1**	**—**	**1**	**—**	**1**		
Total other assets	**1**	**—**	**1**	**—**	**1**	**954**	**955**
Miscellaneous short-term accruals							
Derivatives designated as hedges:							
Commodity contracts[1]	**1**	**(1)**	**—**	**—**	**—**		
Total miscellaneous short-term accruals	**1**	**(1)**	**—**	**—**	**—**		
Total Asset Derivatives	**$20**	**$(8)**	**$12**	**$5**	**$17**		
Liability Derivatives:							
Other current assets							
Derivatives designated as hedges:							
Commodity contracts[1]	**$7**	**$(7)**	**$ —**	**$ —**	**$ —**		
Total other current assets	**7**	**(7)**	**—**	**—**	**—**		
Miscellaneous short-term accruals							
Derivatives designated as hedges:							
Commodity contracts[1]	**3**	**(1)**	**2**	**—**	**2**		
Foreign currency contracts	**14**	**—**	**14**	**—**	**14**		
Derivatives not designated as hedges:							
Commodity contracts	**3**	**—**	**3**	**—**	**3**		
Foreign exchange contracts	**2**	**—**	**2**	**—**	**2**		
Total miscellaneous short-term accruals	**22**	**(1)**	**21**	**—**	**21**	**$719**	**$740**
Total Liability Derivatives	**$29**	**$(8)**	**$21**	**$ —**	**$21**		

[1] As allowed by the Derivatives and Hedging topic of the ASC, commodity derivative assets and liabilities have been offset by collateral subject to an enforceable master netting arrangement or similar arrangement. Therefore, these commodity contracts that are in an asset or liability position are included in asset accounts within the Statements of Consolidated Financial Position.

Notes to the Consolidated Financial Statements *(continued)*

	As of Aug. 31, 2016						
(in millions)	Gross Amounts Recognized	Gross Amounts Offset in the Statement of Consolidated Financial Position	Net Amounts Included in the Statement of Consolidated Financial Position	Collateral Pledged	Net Amounts Reported in the Statement of Consolidated Financial Position	Other Items Included in the Statement of Consolidated Financial Position	Statement of Consolidated Financial Position Balance
Asset Derivatives:							
Other current assets							
Derivatives designated as hedges:							
Commodity contracts[1]	$9	$(29)	$(20)	$20	$ —		
Foreign exchange contracts	4	—	4	—	4		
Derivatives not designated as hedges:							
Commodity contracts[1]	9	(6)	3	—	3		
Foreign exchange contracts	6	—	6	—	6		
Total other current assets	28	(35)	(7)	20	13	$214	$227
Other assets							
Derivatives designated as hedges:							
Commodity contracts[1]	—	(4)	(4)	4	—		
Total other assets	—	(4)	(4)	4	—	489	489
Total Asset Derivatives	$28	$(39)	$(11)	$24	$13		
Liability Derivatives:							
Other current assets							
Derivatives designated as hedges:							
Commodity contracts[1]	$29	$(29)	$ —	$ —	$ —		
Derivatives not designated as hedges:							
Commodity contracts[1]	6	(6)	—	—	—		
Total other current assets	35	(35)	—	—	—		
Other assets							
Derivatives designated as hedges:							
Commodity contracts[1]	4	(4)	—	—	—		
Total other assets	4	(4)	—	—	—		
Miscellaneous short-term accruals							
Derivatives designated as hedges:							
Commodity contracts	11	—	11	—	11		
Foreign currency contracts	8	—	8	—	8		
Interest rate contracts	41	—	41	—	41		
Derivatives not designated as hedges:							
Foreign exchange contracts	7	—	7	—	7		
Total miscellaneous short-term accruals	67	—	67	—	67	$937	$1,004
Other liabilities							
Derivatives designated as hedges:							
Commodity contracts	2	—	2	—	2		
Total other liabilities	2	—	2	—	2	316	318
Total Liability Derivatives	$108	$(39)	$69	$ —	$69		

[1] As allowed by the Derivatives and Hedging topic of the ASC, commodity derivative assets and liabilities have been offset by collateral subject to an enforceable master netting arrangement or similar arrangement. Therefore, these commodity contracts that are in an asset or liability position are included in asset accounts within the Statements of Consolidated Financial Position.

Notes to the Consolidated Financial Statements *(continued)*

The gains and losses on the company's derivative instruments are as follows:

(Dollars in millions)	Amount of Gain (Loss) Recognized in AOCL[1] (Effective Portion) Year Ended Aug. 31, 2017	2016	2015	Amount of Gain (Loss) Recognized in Income[2][3] Year Ended Aug. 31, 2017	2016	2015	Income Statement Classification
Derivatives Designated as Hedges:							
Fair value hedges:							
Commodity contracts[3]				**$ 13**	$ 7	$ —	Cost of goods sold
Cash flow hedges:							
Foreign exchange contracts	**$ 3**	$(17)	$ 51	**7**	8	31	Net sales
Foreign exchange contracts	**4**	3	26	**7**	21	9	Cost of goods sold
Commodity contracts	**22**	(12)	(92)	**(20)**	(113)	(81)	Cost of goods sold
Interest rate contracts	**—**	—	—	**(37)**	—	—	Other (income) expense, net
Interest rate contracts[3]	**3**	(42)	(85)	**(15)**	(15)	(13)	Interest expense
Total Derivatives Designated as Hedges	**32**	(68)	(100)	**(45)**	(92)	(54)	
Derivatives Not Designated as Hedges:							
Foreign exchange contracts[4]				**14**	(36)	(73)	Other (income) expense, net
Commodity contracts				**—**	4	(3)	Net sales
Commodity contracts				**(1)**	1	—	Cost of goods sold
Total Derivatives Not Designated as Hedges				**13**	(31)	(76)	
Total Derivatives	**$32**	$(68)	$(100)	**$(32)**	$(123)	$(130)	

[1] Accumulated Other Comprehensive Loss (''AOCL'')

[2] For derivatives designated as cash flow hedges under the Derivatives and Hedging topic of the ASC, this represents the effective portion of the gain (loss) reclassified from AOCL into income during the period.

[3] The gain or loss on derivatives designated as hedges from ineffectiveness included in current earnings is not significant during fiscal 2017, 2016 or 2015. No gains or losses were excluded from the assessment of hedge effectiveness during fiscal 2017, 2016 or 2015.

[4] Gain or loss on foreign exchange contracts not designated as hedges was offset by a foreign currency transaction loss of $82 million, a loss of $178 million and a gain of $42 million during fiscal 2017, 2016 and 2015, respectively.

Most of the company's outstanding foreign currency derivatives are covered by International Swap and Derivatives Association (''ISDA'') Master Agreements with the counterparties. There are no requirements to post collateral under these agreements; however, should Monsanto's credit rating fall below a specified rating immediately following the merger of the company with another entity, the counterparty may require all outstanding derivatives under the ISDA Master Agreement to be settled immediately at current market value, which equals carrying value. Foreign currency derivatives that are not covered by ISDA Master Agreements do not have credit-risk-related contingent provisions. Most of Monsanto's outstanding commodity derivatives are listed commodity futures, and the company is required by the relevant commodity exchange to post collateral each day to cover the change in the fair value of these futures in the case of an unrealized loss position. Non-exchange-traded commodity derivatives and interest rate contracts may be covered by the aforementioned ISDA Master Agreements and would be subject to the same credit-risk-related contingent provisions. The aggregate fair value of all derivative instruments under ISDA Master Agreements that are in a liability position was $19 million as of Aug. 31, 2017, and $63 million as of Aug. 31, 2016, which is the amount that would be required for settlement if the credit-risk-related contingent provisions underlying these agreements were triggered.

Credit Risk Management

Monsanto invests excess cash in deposits with major banks or money market funds throughout the world in high-quality short-term debt instruments. Such investments are made only in instruments issued or enhanced by high-quality institutions. As of Aug. 31, 2017, and Aug. 31, 2016, the company had no financial instruments that represented a significant concentration of credit risk. Limited amounts are invested in any single institution to minimize risk. The company has not incurred any credit risk losses related to those investments.

The company sells a broad range of agricultural products to a diverse group of customers throughout the world. In the United States, the company makes substantial sales to relatively few large wholesale customers. The company's business is highly seasonal and is subject to weather conditions that affect commodity prices and seed yields. Credit limits, ongoing credit evaluation and account monitoring procedures are used to minimize the risk of loss. Collateral is secured when it is deemed appropriate by the company.

Monsanto regularly evaluates its business practices to minimize its credit risk and periodically engages multiple banks in the United States, Latin America and Europe in the development of customer financing options that involve direct bank financing of customer purchases. For further information on these programs, see Note 7 — Customer Financing Programs.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 16. POSTRETIREMENT BENEFITS — PENSIONS

Monsanto maintains noncontributory pension plans for the benefit of its U.S. employees. Effective Jul. 8, 2012, the U.S. pension plans were closed to new entrants; there were no significant changes to the U.S. pension plans for eligible employees hired prior to that date. Pension benefits are based on an employee's years of service and compensation level. Funded pension plans in the United States and outside the United States were funded in accordance with the company's long-range projections of the plans' financial condition. These projections took into account benefits earned and expected to be earned, anticipated returns on pension plan assets, and income tax and other regulations.

Components of Net Periodic Benefit Cost

The information that follows relates to Monsanto's pension plans. The components of pension cost for these plans were:

	Year Ended Aug. 31, 2017			Year Ended Aug. 31, 2016			Year Ended Aug. 31, 2015		
(Dollars in millions)	**U.S.**	**Outside the U.S.**	**Total**	U.S.	Outside the U.S.	Total	U.S.	Outside the U.S.	Total
Service Cost for Benefits Earned during the Year	**$ 61**	**$12**	**$ 73**	$ 61	$12	$ 73	$ 64	$12	$ 76
Interest Cost on Benefit Obligation	**82**	**5**	**87**	93	7	100	88	7	95
Assumed Return on Plan Assets[1]	**(170)**	**(9)**	**(179)**	(150)	(9)	(159)	(151)	(8)	(159)
Amortization of Unrecognized Net Loss	**47**	**4**	**51**	46	6	52	50	6	56
Restructuring Charges	**—**	**2**	**2**	—	2	2	—	2	2
Other Adjustments	**—**	**1**	**1**	—	2	2	—	—	—
Total Net Periodic Benefit Cost	**$ 20**	**$15**	**$ 35**	$ 50	$20	$ 70	$ 51	$19	$ 70

[1] Generally the calculated value of assets reflects non-liability matching gains/(losses) over a four to five year period.

The other changes in plan assets and benefit obligations recognized in accumulated other comprehensive loss for the year ended Aug. 31, 2017, were:

(Dollars in millions)	**U.S.**	**Outside the U.S.**	**Total**
Current Year Actuarial Gain	**$ (55)**	**$(16)**	**$ (71)**
Recognition of Actuarial Loss[1][2]	**(47)**	**(6)**	**(53)**
Total Recognized in Accumulated Other Comprehensive Loss	**$(102)**	**$(22)**	**$(124)**

[1] The U.S. Plans' actuarial gains/(losses) are amortized over a nine to 16 year period which represents the average future working lifetime for active participants.
[2] Plans outside the U.S. generally amortize actuarial gains/(losses) over a five to 21 year period which represents the average future working lifetime for active participants.

The following assumptions, calculated on a weighted-average basis, were used to determine pension costs for the principal plans in which Monsanto employees participated:

	Year Ended Aug. 31, 2017		Year Ended Aug. 31, 2016		Year Ended Aug. 31, 2015	
	U.S.	**Outside the U.S.**	U.S.	Outside the U.S.	U.S.	Outside the U.S.
Discount Rate	**3.43%**	**1.93%**	4.33%	2.66%	4.04%	3.01%
Assumed Long-Term Rate of Return on Assets	**7.50%**	**5.32%**	7.50%	5.60%	7.50%	6.20%
Annual Rate of Salary Increase (for plans that base benefits on final compensation level)	**4.00%**	**3.60%**	4.00%	3.76%	4.00%	3.92%

Notes to the Consolidated Financial Statements *(continued)*

Obligations and Funded Status

Monsanto uses a measurement date of August 31 for its pension plans. The funded status of the pension plans as of Aug. 31, 2017, and Aug. 31, 2016, was as follows:

	U.S.		Outside the U.S.		Total	
	Year Ended Aug. 31,		Year Ended Aug. 31,		Year Ended Aug. 31,	
(Dollars in millions)	**2017**	2016	**2017**	2016	**2017**	2016
Change in Benefit Obligation:						
Benefit obligation at beginning of period	**$2,427**	$2,190	**$272**	$250	**$2,699**	$2,440
Service cost	**61**	61	**12**	12	**73**	73
Interest cost	**82**	93	**5**	7	**87**	100
Plan participants' contributions	**—**	—	**2**	2	**2**	2
Actuarial (gain)/loss	**(21)**	203	**(12)**	20	**(33)**	223
Benefits paid	**(148)**	(137)	**(12)**	(13)	**(160)**	(150)
Plan amendments	**—**	—	**—**	(6)	**—**	(6)
Settlements / curtailments	**—**	—	**(21)**	(12)	**(21)**	(12)
Special/Contractual Term Benefits	**—**	—	**1**	—	**1**	—
Currency impact	**—**	—	**13**	(1)	**13**	(1)
Other	**—**	17	**—**	13	**—**	30
Benefit Obligation at End of Period	**$2,401**	$2,427	**$260**	$272	**$2,661**	$2,699
Change in Plan Assets:						
Fair value of plan assets at beginning of period	**$2,324**	$2,142	**$182**	$170	**$2,506**	$2,312
Actual return on plan assets	**205**	253	**9**	8	**214**	261
Employer contributions[1]	**23**	66	**11**	12	**34**	78
Plan participants' contributions	**—**	—	**2**	2	**2**	2
Settlements	**—**	—	**(16)**	(8)	**(16)**	(8)
Benefits paid[1]	**(148)**	(137)	**(12)**	(13)	**(160)**	(150)
Currency impact	**—**	—	**9**	—	**9**	—
Other	**—**	—	**—**	11	**—**	11
Plan Assets at End of Period	**$2,404**	$2,324	**$185**	$182	**$2,589**	$2,506
Net Liability/(Asset) Recognized	**$ (3)**	$ 103	**$ 75**	$ 91	**$ 72**	$ 194

[1] Employer contributions and benefits paid include $14 million and $13 million paid from employer assets for unfunded plans in fiscal years 2017 and 2016, respectively.

Weighted-average assumptions used to determine benefit obligations as of Aug. 31, 2017, and Aug. 31, 2016, were as follows:

	U.S.		Outside the U.S.	
	Year Ended Aug. 31,		Year Ended Aug. 31,	
	2017	2016	**2017**	2016
Discount Rate	**3.73%**	3.43%	**2.56%**	1.93%
Rate of Compensation Increase	**3.50%**	4.00%	**3.77%**	3.60%

The U.S. accumulated benefit obligation (''ABO'') was $2.3 billion and $2.4 billion as of Aug. 31, 2017, and Aug. 31, 2016, respectively. The ABO for plans outside of the United States was $204 million and $214 million as of Aug. 31, 2017, and Aug. 31, 2016, respectively.

The projected benefit obligation (''PBO'') and the fair value of the plan assets for pension plans with PBOs in excess of plan assets as of Aug. 31, 2017, and Aug. 31, 2016, were as follows:

	U.S.		Outside the U.S.		Total	
	As of Aug. 31,		As of Aug. 31,		As of Aug. 31,	
(Dollars in millions)	**2017**	2016	**2017**	2016	**2017**	2016
PBO	**$90**	$2,426	**$128**	$250	**$218**	$2,676
Fair Value of Plan Assets with PBOs in Excess of Plan Assets	**—**	2,324	**53**	158	**53**	2,482

Notes to the Consolidated Financial Statements *(continued)*

The PBO, ABO and the fair value of the plan assets for pension plans with ABOs in excess of plan assets as of Aug. 31, 2017, and Aug. 31, 2016, were as follows:

	U.S.		Outside the U.S.		Total	
	As of Aug. 31,		As of Aug. 31,		As of Aug. 31,	
(Dollars in millions)	**2017**	2016	**2017**	2016	**2017**	2016
PBO	**$90**	$96	**$111**	$130	**$201**	$ 226
ABO	**86**	91	**93**	108	**179**	199
Fair Value of Plan Assets with ABOs in Excess of Plan Assets	**—**	—	**37**	46	**37**	46

As of Aug. 31, 2017, and Aug. 31, 2016, amounts recognized in the Statements of Consolidated Financial Position were included in the following financial position accounts:

Net Amount Recognized

	U.S.		Outside the U.S.		Total	
	As of Aug. 31,		As of Aug. 31,		As of Aug. 31,	
(Dollars in millions)	**2017**	2016	**2017**	2016	**2017**	2016
Other Assets	**$(93)**	$ —	**$(8)**	$(8)	**$(101)**	$ (8)
Miscellaneous Short-Term Accruals	**9**	9	**5**	5	**14**	14
Postretirement Liabilities	**81**	94	**78**	94	**159**	188
Net (Asset)/Liability Recognized	**$(3)**	$103	**$75**	$91	**$ 72**	$194

The following table provides a summary of the pretax components of the amount recognized in accumulated other comprehensive loss:

	U.S.		Outside the U.S.		Total	
	As of Aug. 31,		As of Aug. 31,		As of Aug. 31,	
(Dollars in millions)	**2017**	2016	**2017**	2016	**2017**	2016
Net Prior Service Credit	**$ —**	$ —	**$(5)**	$ (6)	**$ (5)**	$ (6)
Net Loss	**380**	482	**38**	61	**418**	543
Total	**$380**	$482	**$33**	$ 55	**$413**	$537

The estimated net loss for the defined benefit pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is $43 million.

Notes to the Consolidated Financial Statements *(continued)*

Plan Assets

U.S. Plans: The asset allocations for Monsanto's U.S. qualified pension plan as of Aug. 31, 2017, and Aug. 31, 2016, and the target allocation range for fiscal year 2018, by asset category, are as follows.

	Target Allocation Range[1]	Percentage of Plan Assets As of Aug. 31,	
Asset Category	2018	**2017**	2016
Public Equity Securities	44-54%	**48.7%**	48.3%
Private Equity Investments	2-8%	**4.5%**	4.5%
Debt Securities	34-48%	**42.0%**	42.4%
Real Estate	2-8%	**4.8%**	4.8%
Total		**100.0%**	100.0%

[1] The target allocation range may change as the funded status of the plan increases/decreases.

The expected long-term rate of return on these plan assets was 7.5 percent in fiscal years 2017, 2016 and 2015. The expected long-term rate of return on plan assets is based on historical and projected rates of return for current and planned asset classes in the plan's investment portfolio. Assumed projected rates of return for each asset class were selected after analyzing historical experience and future expectations of the returns and volatility of the various asset classes. The overall expected rate of return for the portfolio is based on the target asset allocation for each asset class and adjusted for historical and expected experience of active portfolio management results compared to benchmark returns and the effect of expenses paid from plan assets.

The general principles guiding investment of U.S. pension plan assets are embodied in the Employee Retirement Income Security Act of 1974 (''ERISA''). These principles include discharging the company's investment responsibilities for the exclusive benefit of plan participants and in accordance with the ''prudent expert'' standards and other ERISA rules and regulations. Investment objectives for the company's U.S. pension plan assets are to optimize the long-term return on plan assets while maintaining an acceptable level of risk, to diversify assets among asset classes and investment styles and to maintain a long-term focus.

The plan's investment fiduciaries are responsible for selecting investment managers, commissioning periodic asset/liability studies, setting asset allocation targets and monitoring asset allocation and investment performance. The company's pension investment professionals have discretion to manage assets within established asset allocation ranges approved by the plan fiduciaries.

In February 2016, an asset/liability study was completed to determine the optimal strategic asset allocation to meet the plan's projected long-term benefit obligations and desired funded status. The target asset allocation resulting from the asset/liability study is outlined in the previous table.

Plans Outside the United States: The weighted-average asset allocation for Monsanto's pension plans outside of the United States as of Aug. 31, 2017, and Aug. 31, 2016, and the weighted-average target allocation for fiscal year 2018, by asset category, are as follows.

	Target Allocation[1]	Percentage of Plan Assets As of Aug. 31,	
Asset Category	2018	**2017**	2016
Equity Securities	36.9%	**34.6%**	30.9%
Debt Securities	45.0%	**45.4%**	49.9%
Other	18.1%	**20.0%**	19.2%
Total	100.0%	**100.0%**	100.0%

[1] Monsanto's plans outside the United States have a wide range of target allocations, and therefore the 2018 target allocations shown above reflect a weighted-average calculation of the target allocations of each of the plans.

The weighted-average expected long-term rate of return on the plans' assets was 5.3 percent in fiscal year 2017, 5.6 percent in fiscal year 2016 and 6.2 percent in fiscal year 2015. Determination of the expected long-term rate of return for plans outside the United States is consistent with the U.S. methodology.

Notes to the Consolidated Financial Statements *(continued)*

Fair Value Measurements

U.S. Plan: The fair values of our U.S. defined benefit pension plan investments as of Aug. 31, 2017, and Aug. 31, 2016, by asset category, are as follows:

	Fair Value Measurements at Aug. 31, 2017				
(Dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**Cash Collateral Offset[1]**	**Balance as of Aug. 31, 2017**
Investments at Fair Value:					
Short Term Investments	**$38**	**$37**	**$ —**	**$ —**	**$75**
Debt Securities:					
U.S. Government Debt	**—**	**281**	**—**	**—**	**281**
U.S. State & Municipal Debt	**—**	**17**	**—**	**—**	**17**
Foreign Government Debt	**—**	**11**	**—**	**—**	**11**
U.S. Corporate Debt	**—**	**391**	**—**	**—**	**391**
Foreign Corporate Debt	**—**	**61**	**—**	**—**	**61**
U.S. Term Bank Loans	**—**	**1**	**—**	**—**	**1**
Common and Preferred Stock:					
Domestic Small-Capitalization	**25**	**—**	**—**	**—**	**25**
Domestic Large-Capitalization	**308**	**—**	**—**	**—**	**308**
International Developed Markets	**191**	**2**	**—**	**—**	**193**
International Emerging Markets	**42**	**—**	**—**	**—**	**42**
Private Equity Investments	**—**	**—**	**111**	**—**	**111**
Real Estate Investments	**—**	**—**	**119**	**—**	**119**
Futures	**2**	**—**	**—**	**(2)**	**—**
Common and Preferred Stock Sold Short	**—**	**(66)**	**—**	**66**	**—**
Total Assets in the Fair Value Hierarchy	**$606**	**$735**	**$230**	**$64**	**$1,635**
Collective Investment Funds Measured at Net Asset Value as a Practical Expedient					**759**
Collateral Held Under Securities Lending Agreement Measured at Net Asset Value as a Practical Expedient					**191**
Total Investments at Fair Value					**$2,585**

[1] Futures derivative assets and common and preferred stock sold short have been offset by cash collateral held by the counter party.

	Fair Value Measurements at Aug. 31, 2016				
(Dollars in millions)	Level 1	Level 2	Level 3	Cash Collateral Offset[1]	Balance as of Aug. 31, 2016
Investments at Fair Value:					
Short Term Investments	$28	44	$ —	$ —	$72
Debt Securities:					
U.S. Government Debt	—	296	—	—	296
U.S. State & Municipal Debt	—	19	—	—	19
Foreign Government Debt	—	9	—	—	9
U.S. Corporate Debt	—	386	—	—	386
Foreign Corporate Debt	—	65	—	—	65
U.S. Term Bank Loans	—	1	—	—	1
Common and Preferred Stock:					
Domestic Small-Capitalization	15	—	—	—	15
Domestic Large-Capitalization	311	—	—	—	311
International Developed Markets	167	—	—	—	167
International Emerging Markets	39	1	—	—	40
Private Equity Investments	—	—	104	—	104
Real Estate Investments	—	—	112	—	112
Futures	3	—	—	(3)	—
Common and Preferred Stock Sold Short	—	(56)	—	60	4
Total Assets in the Fair Value Hierarchy	$563	$765	$216	$57	$1,601
Collective Investment Funds Measured at Net Asset Value as a Practical Expedient					717
Collateral Held Under Securities Lending Agreement Measured at Net Asset Value as a Practical Expedient					166
Total Investments at Fair Value					$2,484

[1] Futures derivative assets and common and preferred stock sold short have been offset by cash collateral held by the counterparty.

Notes to the Consolidated Financial Statements *(continued)*

The following table summarizes the changes in fair value of the Level 3 investments as of Aug. 31, 2016, and Aug. 31, 2017.

(Dollars in millions)	Private Equity Investments	Partnership Interests	Real Estate Investments	Total
Balance Aug. 31, 2015	$103	$32	$93	$228
Purchases	21	—	16	37
Sales	(22)	(32)	(6)	(60)
Realized/unrealized gains	2	—	9	11
Balance Aug. 31, 2016	$104	$ —	$112	$216
Net Unrealized Gains Still Held Included in Earnings[1]	$(7)	$(32)	$10	$ (29)

(Dollars in millions)	Private Equity Investments	Partnership Interests	Real Estate Investments	Total
Balance Aug. 31, 2016	$104	$ —	$112	$216
Purchases	**20**	**—**	**13**	**33**
Sales	**(24)**	**—**	**(13)**	**(37)**
Realized/unrealized gains	**11**	**—**	**7**	**18**
Balance Aug. 31, 2017	**$111**	**$ —**	**$119**	**$230**
Net Unrealized Gains Still Held Included in Earnings[1]	**$5**	**$ —**	**$4**	**$ 9**

[1] Represents the amount of total gains for the period attributable to change in unrealized gains (losses) relating to assets and liabilities classified as Level 3 that are still held as of Aug. 31, 2017, and Aug. 31, 2016.

The following table reconciles the investments at fair value to the plan assets as of Aug. 31, 2017.

(Dollars in millions)	
Total Investments at Fair Value	**$2,585**
Liability to return collateral held under securities lending agreement	**(191)**
Non-interest bearing cash	**5**
Accrued income	**8**
Other (liabilities) and receivables	**(3)**
Plan Assets at the End of the Period	**$2,404**

In managing the plan assets, Monsanto reviews and manages risk associated with funded status risk, market risk, liquidity risk and operational risk. Asset allocation determined in light of the plans' liability characteristics and asset class diversification is central to the company's risk management approach and is integral to the overall investment strategy. Further mitigation of asset class risk is achieved by investment style, investment strategy and investment management firm diversification. Investment guidelines are included in all investment management agreements with investment management firms managing publicly traded equities and fixed income accounts for the plan.

Plans Outside the United States: The fair values of our defined benefit pension plan investments outside of the United States as of Aug. 31, 2017, and Aug. 31, 2016, by asset category, are as follows:

	Fair Value Measurements at Aug. 31, 2017			
(Dollars in millions)	**Level 1**	**Level 2**	**Level 3**	**Balance as of Aug. 31, 2017**
Short Term Investments	**$4**	**$ —**	**$ —**	**$4**
Debt Securities — Government and Corporate Debt	**—**	**83**	**—**	**83**
Common and Preferred Stock	**50**	**—**	**—**	**50**
Insurance-Backed Securities	**—**	**—**	**33**	**33**
Total Assets in the Fair Value Hierarchy	**$54**	**$83**	**$33**	**$170**
Collective Investment Funds Measured at Net Asset Value as a Practical Expedient				**15**
Total Investments at Fair Value				**$185**

	Fair Value Measurements at Aug. 31, 2016			
(Dollars in millions)	Level 1	Level 2	Level 3	Balance as of Aug. 31, 2016
Short Term Investments	$1	$ —	$ —	$1
Debt Securities — Government and Corporate Debt	—	79	—	79
Common and Preferred Stock	45	—	—	45
Insurance-Backed Securities	—	—	42	42
Total Assets in the Fair Value Hierarchy	$46	$79	$42	$167
Collective Investment Funds Measured at Net Asset Value as a Practical Expedient				15
Total Investments at Fair Value				$182

Notes to the Consolidated Financial Statements *(continued)*

The following table summarizes the changes in fair value of the Level 3 investments as of Aug. 31, 2016, and Aug. 31, 2017.

(Dollars in millions)	Insurance-Backed Securities
Balance Aug. 31, 2015	$31
Purchases	5
Settlements	(6)
Net transfers into Level 3	12
Balance Aug. 31, 2016	$42
Purchases	**3**
Settlements	**(15)**
Realized/unrealized gains	**3**
Balance Aug. 31, 2017	**$33**

In managing the plan assets, risk associated with funded status risk, market risk, liquidity risk and operational risk is considered. The design of a plan's overall investment strategy will take into consideration one or more of the following elements: a plan's liability characteristics, diversification across asset classes, diversification within asset classes and investment management firm diversification. Investment policies consistent with the plan's overall investment strategy are established.

Valuation Methodology for Plan Assets

For assets that are measured using quoted prices in active markets, the total fair value is the published market price per unit multiplied by the number of units held without consideration of transaction costs, which have been determined to be immaterial. Assets that are measured using significant other observable inputs are primarily valued by reference to quoted prices of markets that are not active. The following methods and assumptions were used to estimate the fair value of each class of financial instrument:

Short Term Investments: The carrying value of cash represents fair value as it consists of actual currency (all in U.S. dollars) and is classified as Level 1. A portion are short-term collective investment funds, and because these commingled vehicles lack any formal listing or associated price quotes, they are classified as Level 2.

Debt securities: Debt securities consist of U.S. and foreign corporate credit, U.S. and foreign government issues (including related agency debentures and mortgages), U.S. state and municipal securities and U.S. term bank loans. U.S. treasury and U.S. government agency bonds, as well as foreign government issues, are generally priced by institutional bids, which reflect estimated values based on underlying model frameworks at various dealers and vendors. While some corporate issues are formally listed on exchanges, dealers exchange bid and ask offers to arrive at most executed transaction prices. Term bank loans are priced in a similar fashion to corporate debt securities. All foreign government and foreign corporate debt securities are denominated in U.S. dollars. All individual debt securities included in the Plan are classified as Level 2.

Common and preferred stock: The Plans' common and preferred stock consists of investments in listed U.S. and international company stock. U.S. stock is further sub-divided into small-capitalization (defined as companies with market capitalization less than $2 billion) and large capitalization (defined as companies with market capitalization greater than or equal to $2 billion). International stock is further divided into developed markets and emerging markets. All international market type classifications are consistent with the Plan's chosen international stock performance benchmark index, the MSCI All-Country World Index ex-U.S. (MSCI ACWI ex- U.S.). Most stock investments are valued using quoted prices from the various public markets. Most equity securities trade on formal exchanges, both domestic and foreign (e.g., NYSE, NASDAQ, LSE) and can be accurately described as active markets. The observable valuation inputs are unadjusted quoted prices that represent active market trades and are classified as Level 1. Some common and preferred stock holdings are not listed on established exchanges or actively traded inputs to determine their values are obtainable from public sources and are thus classified as Level 2.

Private equity investments: The Plan invests in private equity, which as an asset class is generally characterized as requiring long-term commitments where liquidity is typically limited. Therefore, private equity does not have an actively traded market with readily observable prices. Most of the Plan's private equity investments are limited partnerships structured as fund-of-funds, which also meet the criteria of commingled funds. These fund-of-funds investments are diversified globally and across typical private equity strategies including: buyouts, co-investments, secondary offerings, venture capital and special situations (e.g., distressed assets). Funds-of-funds represent a collection of underlying limited partnership funds each managed by a different general partner. Each general partner of the underlying limited partnership fund in turn selects and manages a basket of portfolio companies. As a result, each of the Plan's fund-of-funds is essentially a fund of dozens of underlying limited partnership funds and hundreds of underlying company investments. Valuations depend on a variety of proprietary model methodologies, some of which may be derived from publicly available sources. However, there are also material inputs that are not readily observable, and that require subjective assessments. Private equity holdings represent illiquid investments structured as limited partnerships, and redemption requests are not permitted. Disposition of partnership interests can only be affected through the sale of the pension trust's pro-rata ownership stake in the secondary markets, which may require approval of the funds' general partners. All private equity investments are classified as Level 3.

Real estate investments: The Plan invests primarily in U.S. real estate through indirect ownership entities, which are structured as limited partnerships or private real estate investment trusts (''REITs''). Real estate investments are generally illiquid long-

term assets valued in large part using inputs not readily observable in the public markets. Each fund in which the Plan invests typically manages a geographically diversified portfolio of U.S. commercial properties within the office, residential, industrial and retail property sectors. There are no formal listed markets for either the funds' underlying commercial properties, or for shares in any given fund (if applicable). Real estate fund holdings are appraised and valued on an ongoing basis. The trustee obtains prices either from a property management appraisal firm or investment managers' account statement. The underlying real estate holdings not only represent illiquid investments, but explicit redemptions are not permitted. Disposition of partnership interest can only be affected through the sale of the pension trust's pro-rata ownership stake in the secondary markets, which may require approval of the funds' general partners. For investments structured as private REITs, redemption requests for units held are at the discretion of fund managers. All real estate investments are classified as Level 3.

Collective investment funds: In certain instances the Plan invests in pooled or commingled funds in order to gain diversification and efficiency. Although rare, there could be instances in which liquidity is suspended or in which purchases or sales occur at a price different from the net asset value (''NAV''). The Common and Preferred Stock Funds used are predominantly commingled index funds replicating well-known stock market indexes. Each of the Common and Preferred Stock funds are comprised of common and preferred stock that trade on a regular basis in active markets. The Corporate and Government Debt Funds is comprised of fixed income assets.

Derivatives: The U.S. plan is permitted to use financial derivative instruments to hedge certain risks and for investment purposes. The plan enters into futures contracts in the normal course of its investing activities to manage market risk associated with the plan's equity and fixed income investments and to achieve overall investment portfolio objectives. The credit risk associated with these contracts is minimal as they are traded on organized exchanges and settled daily. Exchange-traded equity index and interest rate futures are measured at fair value using quoted market prices making them qualify as Level 1 investments.

The notional value of futures derivatives classified as Level 1 was $140 million and $121 million as of Aug. 31, 2017, and Aug. 1, 2016, respectively.

The U.S. plan also holds listed common and preferred stock short sale positions, which involves a counter-party arrangement with a prime broker. The existence of the prime broker counter-party relationship introduces the possibility that short sale market values may need to be adjusted to reflect any counter-party risk; however, no such adjustment was required as of Aug. 31, 2017, or Aug. 31, 2016. Therefore, the short positions have been classified as Level 2, and their notional value was $67 million and $56 million, as of Aug. 31, 2017, and Aug. 31, 2016, respectively.

Insurance-backed securities: Insurance-backed securities are contracts held with an insurance company. The Level 3 fair value of the investments is determined based upon the value of the underlying investments as determined by the insurance company.

Collateral held under securities lending agreement: The U.S. Plan participates in a securities lending program through Northern Trust. Securities loaned are fully collateralized by cash and U.S. government securities. Northern Trust pools all collateral received and invests any cash in an actively managed commingled fund, the underlying assets of which include short-term fixed income securities such as commercial paper, U.S. Treasury Bills and various forms of asset-backed securities.

Notes to the Consolidated Financial Statements *(continued)*

U.S. Plan: The following tables summarize unfunded commitments and redemption features for investments which fair value is measured using the net asset value per share practical expedient and Level 3 assets as of Aug. 31, 2017, and 2016 respectively.

		Unfunded Commitments and Redemption Features at Aug. 31, 2017		
(Dollars in millions)	**Reported Value**	**Unfunded Commitments**	**Redemption Frequency (if currently eligible**	**Redemption Notice Period**
Collective Investment Funds Measured at Net Asset Value as a Practical Expedient	**$759**	**N/A**	**Daily**	**Daily**
Collateral Held Under Securities Lending Agreement Measured at Net Asset Value as a Practical Expedient	**$191**	**N/A**	**Daily**	**Daily**
Private Equity Investments	**$111**	**$35**	**None**	**N/A**
Real Estate Investments	**$119**	**$23**	**None, 1st bus. day of qtr, at qtr-end**	**N/A, 45 Days**

		Unfunded Commitments and Redemption Features at Aug. 31, 2016		
(Dollars in millions)	Reported Value	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
Collective Investment Funds Measured at Net Asset Value as a Practical Expedient	$717	N/A	Daily	Daily
Collateral Held Under Securities Lending Agreement Measured at Net Asset Value as a Practical Expedient	$166	N/A	Daily	Daily
Private Equity Investments	$104	$53	None	N/A
Real Estate Investments	$112	$34	None, 1st bus. day of qtr, at qtr-end	N/A, 45 Days

Expected Cash Flows

The expected employer contributions and benefit payments are shown in the following table for the pension plans:

(Dollars in millions)	U.S.	Outside the U.S.
Employer Contributions 2018 (funded Plans)	$ 60	$8
Benefits Paid Directly by Employer 2018 (unfunded Plans)	9	4
Benefit Payments[1]		
2018	165	15
2019	151	13
2020	153	14
2021	155	17
2022	158	14
2023-2027	781	82

[1] Expected benefit payments include benefits paid directly by employer for unfunded plans.

The company may contribute additional amounts to the plans depending on the level of future contributions required.

NOTE 17. POSTRETIREMENT BENEFITS — HEALTH CARE AND OTHER POSTEMPLOYMENT BENEFITS

Monsanto-Sponsored Plans

Substantially all regular full-time U.S. employees hired prior to May 1, 2002, and certain employees in other countries become eligible for company-subsidized postretirement health care benefits if they reach retirement age while employed by Monsanto and have the requisite service history. Employees who retired from Monsanto prior to Jan. 1, 2003, were eligible for retiree life insurance benefits. These postretirement benefits are unfunded and are generally based on the employees' years of service or compensation levels, or both. The costs of postretirement benefits are accrued by the date the employees become eligible for the benefits.

The following information pertains to the postretirement benefit plans in which Monsanto employees and certain former employees of Pharmacia allocated to Monsanto participate, principally health care plans and life insurance plans. The cost components of these plans were:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Service Cost for Benefits Earned During the Period	**$8**	$7	$ 7
Interest Cost on Benefit Obligation	**6**	6	6
Amortization of Prior Service Credit	**—**	—	(1)
Amortization of Actuarial Loss/(Gain)	**5**	(4)	(4)
Restructuring Charges	**2**	—	—
Total Net Periodic Benefit Cost	**$21**	$9	$ 8

Notes to the Consolidated Financial Statements *(continued)*

The other changes in plan assets and benefit obligations recognized in accumulated other comprehensive loss for the years ended Aug. 31, 2017, and Aug. 31, 2016, were:

	Year Ended Aug. 31,	
(Dollars in millions)	**2017**	2016
Actuarial (Gain)/Loss	**$(15)**	$ 27
Amortization of Actuarial (Loss)/Gain[1]	**(7)**	4
Total Income Recognized in Accumulated Other Comprehensive Loss	**$(22)**	$ 31

[1] For other postretirement benefits the actuarial gains/(losses) and prior service credit are amortized over a eight to 14 year period which represents the average future working lifetime for active participants.

The following assumptions, calculated on a weighted-average basis, were used to determine the postretirement costs for the U.S. plans in which Monsanto employees participated:

	Year Ended Aug. 31,		
	2017	2016	2015
Discount Rate Postretirement	**3.00%**	3.85%	3.60%
Discount Rate Postemployment	**1.75%**	2.30%	2.40%
Initial Trend Rate for Health Care Costs	**7.50%**	5.50%	6.00%
Ultimate Trend Rate for Health Care Costs	**4.50%**	5.00%	5.00%

A 7.5 percent annual rate of increase in the per capita cost of covered health care benefits was assumed for fiscal year 2017. This assumption is consistent with the plans' recent experience and expectations of future growth. It is assumed that the rate will decrease to 7.0 percent for fiscal year 2018 and gradually decrease to 4.5 percent in 2023 and remain at that level thereafter. Assumed health care cost trend rates have an effect on the amounts reported for the health care plans. A one percentage increase or decrease would not have a material effect on the postretirement costs or benefit obligation.

Monsanto uses a measurement date of August 31 for its other postretirement benefit plans. The status of the postretirement health care, life insurance and employee disability benefit plans in which Monsanto employees participated was as follows for the periods indicated:

	Year Ended Aug. 31,	
(Dollars in millions)	**2017**	2016
Change in Benefit Obligation:		
Benefit obligation at beginning of period	**$189**	$176
Service cost	**8**	7
Interest cost	**6**	6
Actuarial (gain)/loss	**(17)**	27
Plan participant contributions	**7**	5
Benefits paid	**(35)**	(32)
Curtailment	**2**	—
Benefit Obligation at End of Period	**$160**	$189

Weighted-average assumptions used to determine benefit obligations for the U.S. plans as of Aug. 31, 2017, and Aug. 31, 2016, were as follows:

	Year Ended Aug. 31,	
	2017	2016
Discount Rate Postretirement	**3.25%**	3.00%
Discount Rate Postemployment	**2.15%**	1.75%
Initial Trend Rate for Health Care Costs[1]	**7.00%**	7.50%
Ultimate Trend Rate for Health Care Costs	**4.50%**	4.50%

[1] As of Aug. 31, 2017, this rate is assumed to decrease to 4.5 percent for 2023 and remain at that level thereafter.

As of Aug. 31, 2017, and Aug. 31, 2016, amounts recognized in the Statements of Consolidated Financial Position were as follows:

	As of Aug. 31,	
(Dollars in millions)	**2017**	2016
Miscellaneous Short-Term Accruals	**$ 24**	$ 27
Postretirement Liabilities	**136**	162
Total Liability Recognized	**$160**	$189

The following table provides a summary of the pretax components of the amount recognized in accumulated other comprehensive loss during the period.

	Year Ended Aug. 31,	
(Dollars in millions)	**2017**	2016
Actuarial (Gain)/Loss	**$ (8)**	$ 14
Total (Income)/Loss Recognized in Accumulated Other Comprehensive	**$ (8)**	$ 14

Expected Cash Flows

Information about the expected cash flows for the other postretirement benefit plans follows:

(Dollars in millions)	Total
Benefits Paid Directly by Employer 2018	$24
Benefit Payments[1]	
2018	24
2019	21
2020	19
2021	18
2022	16
2023-2027	62

[1] Expected benefit payments include benefits paid directly by employer for unfunded plans.

Notes to the Consolidated Financial Statements *(continued)*

Other U.S. Sponsored Plans

Other U.S. plans are offered to certain eligible employees and are paid out of corporate assets. There is an accrual of $20 million and $22 million as of Aug. 31, 2017, and Aug. 31, 2016, respectively, included in postretirement liabilities on the Statements of Consolidated Financial Position for anticipated payments to employees who have retired or terminated their employment. There is an accrual of $71 million and $65 million as of Aug. 31, 2017, and Aug. 31, 2016, respectively, included in other liabilities on the Statements of Consolidated Financial Position for anticipated payments to active employees upon their retirement or termination of employment.

NOTE 18. EMPLOYEE SAVINGS PLANS

Monsanto-Sponsored Plans

The U.S. tax-qualified Monsanto Savings and Investment Plan (''Monsanto SIP'') was established in June 2001 as a successor to a portion of the Pharmacia Corporation Savings and Investment Plan. The Monsanto SIP is a defined contribution profit-sharing plan with an individual account for each participant. Employees who are 18 years of age or older are generally eligible to participate in the plan. The Monsanto SIP provides for voluntary contributions, generally ranging from one to 25 percent of an employee's eligible pay. Employee contributions are matched 80 percent by the company, up to a maximum of eight percent of eligible pay. In fiscal years 2017, 2016 and 2015, the company recognized expense of $58 million, $61 million and $59 million, respectively, for matching contributions.

Participants hired after July 8, 2012, the date the U.S. pension plan closed, may also be eligible for an age-based, company core non-elective contribution. In fiscal years 2017, 2016 and 2015, the company recognized expense of $11 million, $8 million and $6 million, respectively, for non-elective contributions.

NOTE 19. STOCK-BASED COMPENSATION PLANS

Accounting Standards Update No 2016-09 (ASU 2016-09), Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting was issued in March 2016 and early adopted by the company in the fourth quarter of fiscal 2017. Under ASU 2016-09, entities are permitted to make an accounting policy election for the impact of forfeitures on the recognition of expense for share-based payment awards. Forfeitures can be estimated or recognized when they occur. The company elected to continue to estimate its forfeiture rate, rather than recognizing forfeitures as they occur. Additionally, ASU 2016-09 addresses the presentation of excess tax benefits and employee taxes paid on the statement of cash flows. The standard requires presentation of excess tax benefits as an operating activity (combined with other income tax cash flows) on the statement of cash flows rather than as a financing activity. Monsanto adopted this change prospectively during the fourth quarter of fiscal 2017, which resulted in an increase in net cash required by financing activities and an increase in net cash provided by operating activities by an immaterial amount for the period ended Aug. 31, 2017. Accordingly, prior period amounts have not been adjusted. ASU 2016-09 also requires the presentation of amounts withheld for applicable income taxes on employee share-based awards as a financing activity on the statement of cash flows. This adoption did not have an impact on our cash flow statement as the company was already applying this approach.

ASU 2016-09 also eliminates additional paid in capital (''APIC'') pools and requires excess tax benefits and tax deficiencies to be recorded in the income statement when the awards vest or are settled. This requirement is to be adopted prospectively by the company. The impact of this section of the standard was not material to any quarter or year-to-date period within fiscal year 2017 and thus the full year impact was reported in the fourth quarter of fiscal year 2017. In addition, the ASU requires that the excess tax benefit be removed from the overall calculation of diluted shares. The impact on diluted earnings per share of this adoption was also not material to any quarter or year-to-date period within fiscal year 2017.

Finally, modified retrospective adoption of ASU 2016-09 eliminates the requirement that excess tax benefits be realized (i.e. through a reduction in income taxes payable) before they are recognized. The adoption of this portion of the standard had no impact on the financial statements.

The following table shows the components of stock-based compensation in the Statements of Consolidated Operations and Statements of Consolidated Cash Flows for the comparative three years. Stock-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that are ultimately expected to vest.

	Year Ended Aug. 31,		
(Dollars in millions, except per share amounts)	**2017**	2016	2015
Cost of Goods Sold	**$ 15**	$ 14	$ 8
Selling, General and Administrative Expenses	**85**	70	80
Research and Development Expenses	**25**	28	31
Restructuring Charges	**1**	(10)	—
Total Stock-Based Compensation Expense Included in Operating Charges	**126**	102	119
Loss from Continuing Operations Before Income Taxes	**(126)**	(102)	(119)
Income Tax Benefit	**48**	38	38
Net Loss	**$ (78)**	$ (64)	$ (81)
Basic Loss per Share	**$(0.18)**	$(0.14)	$(0.17)
Diluted Loss per Share	**$(0.18)**	$(0.14)	$(0.17)
Excess Tax Benefits	**$ —**	$ 16	$ 44

Notes to the Consolidated Financial Statements *(continued)*

Plan Descriptions: Share-based awards are designed to reward employees for their long-term contributions to the company and to provide incentives for them to remain with the company. Monsanto issues stock options, restricted stock, restricted stock units and deferred stock to key officers, non-employee directors and employees of Monsanto. On Jan. 24, 2012, Monsanto shareowners approved a total of 33.6 million shares to be available for grants of awards under the Monsanto Company 2005 Long-Term Incentive Plan, as Amended, (''amended 2005 LTIP'') after Aug. 31, 2011, (including for this purpose awards made after Aug. 31, 2011, under our prior equity plans) under which the company grants awards. This included 25.0 million new shares in addition to the 8.6 million shares remaining available for future grant as of Aug. 31, 2011. The delivery of shares pursuant to restricted stock, restricted stock units and deferred stock awards will reduce the remaining available shares by 2.7 shares per share delivered. Upon shareowner approval of the amended 2005 LTIP, no further awards may be granted under our prior equity plans, although awards granted under such plans prior to the commencement of the amended 2005 LTIP will continue to remain outstanding under their terms. As of Aug. 31, 2017, 16.2 million shares were available for grant under the amended 2005 LTIP.

For the fiscal year ended Aug. 31, 2017, the company did not grant any stock options. All unexercised stock options remain outstanding under the terms of their respective grants. The plans provide that the term of any option granted may not exceed ten years and that each option may be exercised for such period as may be specified in the terms and conditions of the grant, as approved by the People and Compensation Committee of the Board of Directors. Generally, the options vest over three years, with one-third of the total award vesting each year. Grants of restricted stock or restricted stock units generally vest at the end of a three to four year service period as specified in the terms and conditions of the grant, as approved by the People and Compensation Committee of the Board of Directors.

Under all plans discussed above, restricted stock and restricted stock units represent the right to receive a number of shares of stock dependent upon vesting requirements. Vesting is subject to the terms and conditions of the grant, which generally require the employees' continued employment during the designated service period and may also be subject to Monsanto's attainment of specified performance criteria during the designated performance period. Shares related to restricted stock and restricted stock units are released to employees upon satisfaction of all vesting requirements. Compensation expense for stock options, restricted stock, restricted stock units and deferred stock is measured at fair value on the date of grant, net of estimated forfeitures, and recognized over the vesting period of the award.

A summary of the status of Monsanto's stock options for the periods from Sept. 1, 2014, through Aug. 31, 2017, follows:

	Options	Outstanding Weighted-Average Exercise Price
Balance Outstanding Sept. 1, 2014	13,437,635	$72.23
Granted	1,730,040	112.94
Exercised	(2,439,135)	56.47
Forfeited/expired	(241,786)	75.56
Balance Outstanding Aug. 31, 2015	12,486,754	80.88
Granted	2,264,950	91.39
Exercised	(1,502,763)	97.51
Forfeited/expired	(359,487)	92.65
Balance Outstanding Aug. 31, 2016	12,889,454	85.56
Exercised	**(1,373,065)**	**111.47**
Forfeited/expired	**(139,934)**	**97.50**
Balance Outstanding Aug. 31, 2017	**11,376,455**	**$86.50**

At Aug. 31, 2017, 9,662,903 stock options were exercisable. The weighted-average remaining contractual life of these stock options was four years, and the weighted-average exercise price was $84.64 per share. The aggregate intrinsic value of these stock options was $307 million at Aug. 31, 2017.

At Aug. 31, 2017, 11,244,290 stock options were vested or expected to vest. The weighted-average remaining contractual life of these stock options was five years, and the weighted-average exercise price was $86.37 per share. The aggregate intrinsic value of these stock options was $347 million at Aug. 31, 2017.

The weighted-average grant-date fair value of stock options granted during fiscal years 2017, 2016 and 2015 was $0, $20.64 and $24.38, respectively, per share. The total pretax intrinsic value of options exercised during the fiscal years ended 2017, 2016 and 2015 was $48 million, $66 million and $150 million, respectively. Pretax unrecognized compensation expense for stock options, net of estimated forfeitures, was $11 million as of Aug. 31, 2017, and will be recognized as expense over a weighted-average remaining vesting period of 0.9 years.

Notes to the Consolidated Financial Statements *(continued)*

A summary of the status of Monsanto's restricted stock and restricted stock units for fiscal year 2017 follows in the tables below:

	Restricted Stock	Weighted-Average Grant Date Fair Values	Restricted Stock Units	Weighted-Average Grant Date Fair Values
Nonvested as of Aug. 31, 2016	7,507	$ 96.58	1,688,918	$ 98.56
Granted	**3,179**	**106.84**	**1,491,151**	**101.81**
Vested	**(5,135)**	**111.93**	**(590,336)**	**102.41**
Forfeitures	**—**	**—**	**(161,573)**	**99.95**
Nonvested as of Aug. 31, 2017	**5,551**	**$ 88.26**	**2,428,160**	**$ 99.53**

Pre-tax unrecognized compensation expense, net of estimated forfeitures as applicable (dollars in millions)	**$ —**	**$ 105**
Remaining weighted-average period of expense recognition/requisite service periods (in years)	**1.4**	**1.3**

	Weighted-average grant-date fair value during fiscal year			Total fair value of equity vested during fiscal year		
(Dollars in millions, except per share amounts)	**2017**	2016	2015	**2017**	2016	2015
Restricted stock	**$106.84**	$91.29	$115.65	**$ 1**	$ 1	$—
Restricted stock units	**$101.81**	$87.85	$108.42	**$60**	$66	$52

Valuation and Expense Information under Compensation — Stock Compensation topic of the ASC: Monsanto estimates the value of employee stock options on the date of grant using a lattice-binomial model. A lattice-binomial model requires the use of extensive actual employee exercise behavior data and a number of complex assumptions including volatility, risk-free interest rate and expected dividends. Expected volatilities used in the model are based on implied volatilities from traded options on Monsanto's stock and historical volatility of Monsanto's stock price. The expected life represents the weighted-average period the stock options are expected to remain outstanding and is a derived output of the model. The lattice-binomial model incorporates exercise and post-vesting forfeiture assumptions based on an analysis of historical data. The following assumptions are used to calculate the estimated value of employee stock options:

	Lattice-binomial	
Assumptions	2016	2015
Expected Dividend Yield	1.9%	1.7%
Expected Volatility	23-35%	20-35%
Weighted-Average Volatility	27.5%	25.9%
Risk-Free Interest Rates	1.40-2.05%	1.56-2.11%
Weighted-Average Risk-Free Interest Rate	1.78%	1.99%
Expected Option Life (in years)	7	7

Monsanto estimates the value of restricted stock units using the fair value on the date of grant. When dividends are not paid on outstanding restricted stock units, the award is valued by reducing the grant-date price by the present value of the dividends expected to be paid, discounted at the appropriate risk-free interest rate.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 20. CAPITAL STOCK

Monsanto is authorized to issue 1.5 billion shares of common stock, $0.01 par value, and 20 million shares of undesignated preferred stock, $0.01 par value. The board of directors has the authority, without action by the shareowners, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights of the company's common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of common stock until the board of directors determines the specific rights of the holders of preferred stock.

The authorization of undesignated preferred stock makes it possible for Monsanto's board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of the company. These and other provisions may deter hostile takeovers or delay attempts to change management control.

There were no shares of preferred stock outstanding as of Aug. 31, 2017, or Aug. 31, 2016. As of Aug. 31, 2017, and Aug. 31, 2016, 439.6 million and 437.8 million shares of common stock were outstanding, respectively.

On Oct. 9, 2015, Monsanto entered into uncollared accelerated share repurchase (''ASR'') agreements with each of Citibank, N.A. and JPMorgan Chase Bank, N.A. The ASR agreements were completed and settled in accordance with the terms of the agreements in fiscal year 2016. Under the ASR agreements, the company purchased approximately 32.2 million of Monsanto common stock for an aggregate price of $3.0 billion, which was accounted for as an increase to treasury stock. The ASR agreements were entered into pursuant to the share repurchase authorization announced in June 2014.

In June 2014, the company announced a share repurchase authorization for up to $10 billion of the company's common stock over a two-year period. Repurchases under the authorization commenced on July 1, 2014. For the year ended Aug. 31, 2016, 32.2 million shares were received under this authorization all of which were delivered upon settlement of the Oct. 9, 2015 ASR agreements for $3 billion. The share repurchase authorization expired on June 24, 2016.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 21. ACCUMULATED OTHER COMPREHENSIVE LOSS

The following table sets forth the after-tax components of accumulated other comprehensive loss and changes thereto:

(Dollars in millions)	Foreign Currency Translation Adjustments	Net Unrealized Gain on Available for Sale Securities	Cash Flow Hedges	Postretirement Benefit Items	Total Accumulated Other Comprehensive Loss
Balance as of Aug. 31, 2015	$(2,327)	$2	$(190)	$(286)	$(2,801)
Other comprehensive income (loss) before reclassifications	35	(2)	(42)	(83)	(92)
Amounts reclassified from accumulated other comprehensive loss	—	1	55	29	85
Net current-period other comprehensive income (loss)	35	(1)	13	(54)	(7)
Balance as of Aug. 31, 2016	(2,292)	1	(177)	(340)	(2,808)
Other comprehensive income (loss) before reclassifications	**233**	**(2)**	**21**	**55**	**307**
Amounts reclassified from accumulated other comprehensive loss	**—**	**2**	**34**	**38**	**74**
Net current-period other comprehensive income	**233**	**—**	**55**	**93**	**381**
Balance as of Aug. 31, 2017	**$(2,059)**	**$1**	**$(122)**	**$(247)**	**$(2,427)**

The following table provides additional information regarding items reclassified out of accumulated other comprehensive loss into earnings during the twelve months ended Aug. 31, 2017, and Aug. 31, 2016.

(Dollars in millions)	Amount Reclassified from Accumulated Other Comprehensive Loss Year Ended Aug. 31		Affected Line Item in the Statement of Consolidated Operations
	2017	2016	
Available for Sale Securities:			
Loss on Sale of Security	**$ 3**	$ 2	Other (income) expense, net
	3	2	Total before income taxes
	(1)	(1)	Income tax provision
	$ 2	$ 1	Net of tax
Cash Flow Hedges:			
Foreign Exchange Contracts	**$ (7)**	$ (8)	Net sales
Foreign Exchange Contracts	**(7)**	(21)	Cost of goods sold
Commodity Contracts	**20**	113	Cost of goods sold
Interest Rate Contracts	**37**	—	Other (income) expense, net
Interest Rate Contracts	**15**	15	Interest expense
	58	99	Total before income taxes
	(24)	(44)	Income tax provision
	$ 34	$ 55	Net of tax
Postretirement Benefit Items:			
Amortization of Unrecognized Net Loss	**$ 19**	$ 16	Inventory / Cost of goods sold[(1)]
Amortization of Unrecognized Net Loss	**37**	31	Selling, general and administrative expenses
Amortization of Unrecognized Net Loss	**4**	—	Restructuring charges
	60	47	Total before income taxes
	(22)	(18)	Income tax provision
	$ 38	$ 29	Net of tax
Total Reclassifications For The Period	**$ 74**	$ 85	Net of tax

[(1)]The amortization of unrecognized net loss is recorded to net periodic benefit cost, which is allocated to selling, general and administrative expenses and to inventory, which is recognized through cost of goods sold. The company recorded $19 million and $16 million of net periodic benefit cost to inventory, of which approximately $19 million and $16 million was recognized in cost of goods sold during of the twelve months ended Aug. 31, 2017, and Aug. 31, 2016, respectively. See Note 16 — Postretirement Benefits - Pensions — and Note 17 — Postretirement Benefits - Health Care and Other Postemployment Benefits — for additional information.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 22. EARNINGS PER SHARE

Basic earnings per share (''EPS'') was computed using the weighted-average number of common shares outstanding during the periods shown in the table below. The diluted EPS computation takes into account the effect of dilutive potential common shares, as shown in the table below. Potential common shares consist of stock options, restricted stock, restricted stock units and directors' deferred shares calculated using the treasury stock method and are excluded if their effect is antidilutive. Of those antidilutive options, certain stock options were excluded from the computations of dilutive potential common shares as its exercise prices were greater than the average market price of common shares for the period.

	Year Ended Aug. 31,		
(In millions)	**2017**	2016	2015
Weighted-Average Number of Common Shares	**438.8**	442.7	476.9
Dilutive Potential Common Shares	**5.0**	4.4	4.5
Antidilutive Potential Common Shares	**2.0**	5.4	1.7

NOTE 23. SUPPLEMENTAL CASH FLOW INFORMATION

Cash payments for interest and taxes during fiscal years 2017, 2016 and 2015, were as follows:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Interest	**$417**	$387	$343
Taxes	**543**	841	992

During fiscal years 2017, 2016 and 2015, the company recorded the following noncash investing and financing transactions:

- During fiscal years 2017, 2016 and 2015, the company recognized noncash transactions related to restructuring. See Note 5 — Restructuring.
- In the fourth quarter of fiscal 2017, 2016 and 2015, the board of directors declared a dividend payable in the first quarter of fiscal 2018, 2017 and 2016, respectively. As of Aug. 31, 2017, Aug. 31, 2016, and Aug. 31, 2015, a dividend payable of $237 million, $237 million and $254 million, respectively, was recorded.
- During fiscal years 2017, 2016 and 2015, the company recognized noncash capital expenditures of $290 million, $210 million and $225 million, respectively, in accounts payable in the Statements of Consolidated Financial Position.
- During fiscal years 2016, 2015 and 2014, the company recognized noncash transactions related to stock-based compensation. See Note 19 — Stock-Based Compensation Plans — for further discussion of stock-based compensation.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 24. COMMITMENTS AND CONTINGENCIES

Contractual obligations: The following table sets forth the company's estimates of future payments under contracts as of Aug. 31, 2017.

		Payments Due by Fiscal Year Ending Aug. 31,					
(Dollars in millions)	Total	2018	2019	2020	2021	2022	2023 and beyond
Total Debt, including Capital Lease Obligations	$ 8,124	$ 870	$ 802	$ 108	$ 501	$253	$ 5,590
Interest Payments Relating to Long-Term Debt and Capital Lease Obligations[1]	6,027	312	289	268	267	253	4,638
Operating Lease Obligations	511	149	109	84	60	44	65
Purchase Obligations:							
Commitments to purchase inventories	3,668	1,365	484	472	383	294	670
Commitments to purchase breeding research	440	55	55	55	55	55	165
R&D alliances and joint venture obligations	145	45	34	30	19	16	1
Uncompleted additions to property	775	771	4	—	—	—	—
Other purchase obligations	25	24	1	—	—	—	—
Other Liabilities:							
Postretirement liabilities[2]	105	105	—	—	—	—	—
Unrecognized tax benefits[3]	93	—	—	—	—	—	—
Environmental liabilities	204	14	16	21	7	7	139
Total Contractual Obligations	$20,117	$3,710	$1,794	$1,038	$1,292	$922	$11,268

[1] For variable rate debt, interest is calculated using the applicable rates as of Aug. 31, 2017.

[2] Includes the company's planned pension and other postretirement benefit contributions for fiscal 2018. The actual amounts funded in fiscal 2018 may differ from the amounts listed above. Contributions in fiscal 2019 and beyond are excluded as those amounts are unknown. Refer to Note 16 — Postretirement Benefits - Pensions — and Note 17 — Postretirement Benefits - Health Care and Other Postemployment Benefits — for more information.

[3] Unrecognized tax benefits relate to reserves for uncertain tax positions recorded under the Income Taxes topic of the ASC. The company is unable to reasonably predict the timing of tax settlements, as tax audits can involve complex issues, and the resolution of those issues may span multiple years, particularly if subject to negotiation or litigation. See Note 12 — Income Taxes — for more information.

Leases: The company routinely leases buildings for use as administrative offices or warehousing, land for research facilities, company aircraft, railcars, motor vehicles and equipment. Assets held under capital leases are included in property, plant and equipment. Certain operating leases contain renewal options that may be exercised at Monsanto's discretion. The expected lease term is considered in the decision as to whether a lease should be recorded as capital or operating.

Certain operating leases contain escalation provisions for an annual inflation adjustment factor, and some are based on the CPI published by the Bureau of Labor Statistics. Additionally, certain leases require Monsanto to pay for property taxes, insurance, maintenance and other operating expenses called rent adjustments, which are subject to change over the life of the lease. These adjustments were not determinable at the time the lease agreements were executed. Therefore, Monsanto recognizes the expenses for rent and rent adjustments when they become known and payable, which is more representative of the time pattern in which the company derives the related benefit in accordance with the Leases topic of the ASC.

Other lease agreements provide for base rent adjustments contingent upon future changes in Monsanto's use of the leased space. At the inception of these leases, Monsanto does not have the right to control more than the percentage defined in the lease agreement of the leased property. Therefore, as the company's use of the leased space increases, the company recognizes rent expense for the additional leased property during the period during which the company has the right to control the use of additional property in accordance with the Leases topic of the ASC.

Rent expense was $262 million for fiscal year 2017, $256 million for fiscal year 2016 and $273 million for fiscal year 2015.

Guarantees: Monsanto may provide and has provided guarantees on behalf of its consolidated subsidiaries for obligations incurred in the normal course of business. Because these are guarantees of obligations of consolidated subsidiaries, Monsanto's consolidated financial position is not affected by the issuance of these guarantees.

Monsanto warrants the performance of certain products through standard product warranties. In addition, Monsanto provides extensive marketing programs to increase sales and enhance customer satisfaction. These programs may include performance warranty features and indemnification for risks not related to performance, both of which are provided to qualifying customers on a contractual basis. The cost of payments for claims based on performance warranties has been, and is expected to continue to be, insignificant. It is not possible to predict the maximum potential amount of future payments for indemnification for losses not related to the performance of Monsanto's products (for example, replanting due to extreme weather conditions), because it is not possible to predict whether the specified contingencies will occur and if so, to what extent.

In various circumstances, Monsanto has agreed to indemnify or reimburse other parties for various losses or expenses. For example, like many other companies, Monsanto has agreed to

Notes to the Consolidated Financial Statements *(continued)*

indemnify its officers and directors for liabilities incurred by reason of their position with Monsanto. Contracts for the sale or purchase of a business or line of business may require indemnification for various events, including certain events that arose before the sale, or tax liabilities that arise before, after or in connection with the sale. Certain environmental obligations are backed by performance bonds. Certain seed licensee arrangements indemnify the licensee against liability and damages, including legal defense costs, arising from any claims of patent, copyright, trademark or trade secret infringement related to Monsanto's trait technology. Germplasm licenses generally indemnify the licensee against claims related to the source or ownership of the licensed germplasm. Litigation settlement agreements may contain indemnification provisions covering future issues associated with the settled matter. Credit agreements and other financial agreements frequently require reimbursement for certain unanticipated costs resulting from changes in legal or regulatory requirements or guidelines. These agreements may also require reimbursement of withheld taxes, and additional payments that provide recipients amounts equal to the sums they would have received had no such withholding been made. Indemnities like those in this paragraph may be found in many types of agreements, including, for example, operating agreements, leases, purchase or sale agreements and other licenses. Leases may require indemnification for liabilities Monsanto's operations may potentially create for the lessor or lessee. It is not possible to predict the maximum future payments possible under these or similar provisions because it is not possible to predict whether any of these contingencies will come to pass and if so, to what extent. Historically, these types of provisions did not have a material effect on Monsanto's financial position, profitability or liquidity. Monsanto believes that if it were to incur a loss in any of these matters, it would not have a material effect on its financial position, profitability or liquidity. Based on the company's current assessment of exposure, Monsanto has recorded a liability of less than $1 million as of Aug. 31, 2017, and Aug. 31, 2016, related to these indemnifications.

Monsanto provides guarantees for certain customer loans in the United States, Latin America and Europe. See Note 7 — Customer Financing Programs — for additional information.

Information regarding Monsanto's indemnification obligations to Pharmacia under the Separation Agreement can be found below in the ''Litigation'' section of this note.

Environmental and Litigation Liabilities: Monsanto is involved in environmental remediation and legal proceedings to which Monsanto is party in its own name and proceedings to which its former parent, Pharmacia LLC (''Pharmacia'') or its former subsidiary, Solutia, Inc. (''Solutia'') is a party but that Monsanto manages and for which Monsanto is responsible pursuant to certain indemnification agreements. In addition, Monsanto has liabilities established for various product claims. With respect to certain of these proceedings, Monsanto has established a reserve for the estimated liabilities. For more information on Monsanto's policies regarding ''Litigation and Other Contingencies,'' see Note 2 — Significant Accounting Policies. Portions of the liability included in a reserve for which the amount and timing of cash payments are fixed or readily determinable were discounted, using a risk-free discount rate adjusted for inflation ranging from 3.2 to 3.6 percent. The remaining portions of the liability were not subject to discounting because of uncertainties in the timing of cash outlay. The following table provides a detailed summary of the discounted and undiscounted amounts included in the reserve for environmental and litigation liabilities:

(Dollars in millions)	
Aggregate Undiscounted Amount	**$119**
Discounted Portion:	
Expected payment (undiscounted) for:	
2018	**14**
2019	**16**
2020	**21**
2021	**7**
2022	**7**
Undiscounted aggregate expected payments after 2022	**139**
Aggregate Amount to be Discounted as of Aug. 31, 2017	**204**
Discount, as of Aug. 31, 2017	**(46)**
Aggregate Discounted Amount Accrued as of Aug. 31, 2017	**$158**
Total Environmental and Litigation Reserve as of Aug. 31, 2017	**$277**

Changes in the environmental and litigation liabilities for fiscal years 2015, 2016 and 2017 are as follows:

(Dollars in millions)	
(Dollars in millions)	
Balance at Aug. 31, 2014	$ 291
Payments	(67)
Accretion	3
Adjustments to liabilities recognized in fiscal year 2015	129
Balance at Aug. 31, 2015	$ 356
Payments	(117)
Accretion	3
Adjustments to liabilities recognized in fiscal year 2016	303
Balance at Aug. 31, 2016	$ 545
Payments	**(303)**
Accretion	**2**
Adjustments to liabilities recognized in fiscal year 2017	**33**
Total Environmental and Litigation Reserve as of Aug. 31, 2017	**$ 277**

Notes to the Consolidated Financial Statements *(continued)*

Environmental: Included in the liability are amounts related to environmental remediation of sites associated with Pharmacia's former chemicals and agricultural businesses, with no single site representing the majority of the environmental liability. These sites are in various stages of environmental management. At some sites, work is in the early stages of assessment and investigation, while at others the cleanup remedies have been implemented and the remaining work consists of monitoring the integrity of that remedy. The extent of Monsanto's involvement at the various sites ranges from less than one percent to 100 percent of the costs currently anticipated. At some sites, Monsanto is acting under court or agency order, while at others it is acting with very minimal government involvement.

Monsanto does not currently anticipate any material loss in excess of the amount recorded for the environmental sites reflected in the liability. However, it is possible that new information about these sites for which the accrual has been established, such as results of investigations by regulatory agencies, Monsanto or other parties, could require Monsanto to reassess its potential exposure related to environmental matters. Monsanto's future remediation expenses at these sites may be affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Monsanto at the sites relative to that attributable to other parties and the financial capabilities of the other potentially responsible parties. Monsanto cannot reasonably estimate any additional loss and does not expect the resolution of such uncertainties, or environmental matters not reflected in the liability, to have a material adverse effect on its consolidated results of operations, financial position, cash flows or liquidity.

Litigation: The above liability includes amounts related to certain third-party litigation with respect to Monsanto's business, as well as tort litigation related to Pharmacia's former chemical business, including lawsuits involving polychlorinated biphenyls (''PCBs''), dioxins, and other chemical and premises liability litigation. Additional matters that are not reflected in the liability may arise in the future, and Monsanto may manage, settle, or pay judgments or damages with respect thereto in order to mitigate contesting potential liability. Following is a description of one of the more significant litigation matters.

- The company was named in approximately 30 personal injury lawsuits filed over several years on behalf of approximately 750 persons in state courts in St. Louis, Missouri and Los Angeles, California. Plaintiffs claimed they were injured by PCBs manufactured by Pharmacia's chemical business over four decades ago and incorporated into products made, used and sometimes disposed of by others. In September 2016, the parties reached an agreement to settle these personal injury lawsuits pursuant to which the company is required to pay up to $280 million into a settlement fund, with the settlement and the final payment amount contingent upon the level of claimant participation. As of Aug. 31, 2016, $280 million was recorded in the Statement of Consolidated Financial Position within miscellaneous short-term accruals; the related expense was included in selling, general and administrative expenses in the Statement of Consolidated Operations. In November 2016 and December 2016, the first and second claimant participation levels were met, and the company paid $250 million and $25 million respectively, into the settlement fund. In February, June and September 2017, pro rata portions of the final claimant participation level were met, and payments totaling approximately $4 million were made. The company also has been named in lawsuits brought by various governmental entities claiming that Monsanto, Pharmacia and Solutia, collectively as a manufacturer of PCBs, should be responsible for a variety of damages due to PCBs in bodies of water, regardless of how PCBs came to be located there. The company believes that these novel claims are without merit and is vigorously defending the cases on legal and factual grounds.

Including litigation reflected in the liability, Monsanto is involved in various legal proceedings that arise in the ordinary course of its business or pursuant to Monsanto's indemnification obligations to Pharmacia, as well as proceedings that management has considered to be material under SEC regulations. Some of the lawsuits seek damages in very large amounts or seek to restrict the company's business activities. Monsanto believes that it has meritorious legal arguments and will continue to represent its interests vigorously in all of the proceedings that it is defending or prosecuting. Management does not anticipate the ultimate liabilities resulting from such proceedings, or the proceedings reflected in the above liability, will have a material adverse effect on Monsanto's consolidated results of operations, financial position, cash flows or liquidity.

The company is defending lawsuits in various state and federal courts, in which approximately 3,100 plaintiffs claim to have been injured by exposure to glyphosate-based products manufactured by the company. The majority of plaintiffs have brought actions in state courts in Missouri, Delaware and California, while the remainder of plaintiffs' cases were filed in many different federal courts. In October 2016, the Judicial Panel on Multi-District Litigation transferred to the Northern District of California all of the federal cases for pretrial purposes. The company believes that it has meritorious factual and legal defenses to these cases and is vigorously defending them.

Legal actions have been filed in Brazil that raise various issues challenging the right to collect certain royalties for *Roundup Ready* soybeans, such as whether Brazilian pipeline patents have the duration of their corresponding U.S. patents (2014 for *Roundup Ready* soybeans) and whether Brazil's Plant Variety Protection law affects the enforceability of patents. These issues are currently under judicial review in Brazil. Monsanto believes it has meritorious legal arguments and will continue to

Notes to the Consolidated Financial Statements *(continued)*

represent its interests vigorously in these proceedings. The current estimate of the company's reasonably possible loss contingency is not material to consolidated results of operations, financial position, cash flows or liquidity.

Off-Balance Sheet Arrangement: Monsanto has substantially completed making a significant expansion of the Chesterfield, Missouri facility. In December 2013, Monsanto executed the first of a series of incentive agreements with the County of St. Louis, Missouri. Under these agreements Monsanto has transferred the Chesterfield, Missouri facility to St. Louis County and received Industrial Revenue Bonds in the amount of up to $470 million, which enables the company to reduce the cost of constructing and operating the expansion by reducing certain state and local tax expenditures. Monsanto immediately leased the facility from the County of St. Louis and has an option to purchase the facility upon tendering the Industrial Revenue Bonds received to the County. The payments due to the company in relation to the Industrial Revenue Bonds and owed by the company in relation to the lease of the facility qualify for the right of offset in accordance with the Balance Sheet topic of the ASC in the Statements of Consolidated Financial Position. As such, neither the Industrial Revenue Bonds nor the lease obligation are recorded in the Statements of Consolidated Financial Position as an asset or liability, respectively. The Chesterfield facility and the expansion are being treated as being owned by Monsanto.

Notes to the Consolidated Financial Statements *(continued)*

NOTE 25. SEGMENT AND GEOGRAPHIC DATA

Monsanto conducts its worldwide operations through global businesses, which are aggregated into reportable segments based on similarity of products, production processes, customers, distribution methods and economic characteristics. The operating segments are aggregated into two reportable segments: Seeds and Genomics and Agricultural Productivity.

The Seeds and Genomics segment consists of the global seeds and related traits businesses, biotechnology platforms and digital agriculture. Within the Seeds and Genomics segment, Monsanto's significant operating segments are corn seed and traits, soybean seed and traits, cotton seed and traits, vegetable seeds and all other crops seeds and traits. The Agricultural Productivity reportable segment consists of the Agricultural Productivity operating segment. EBIT is defined as earnings (loss) before interest and taxes and is an operating performance measure for the two reportable segments. EBIT is useful to management in demonstrating the operational profitability of the segments by excluding interest and taxes, which are generally accounted for across the entire company on a consolidated basis. Sales between segments were not significant. Certain SG&A expenses are allocated between segments based on the segment's relative contribution to total Monsanto operations. Allocation percentages remain consistent for fiscal years 2015, 2016 and 2017.

Data for the Seeds and Genomics and Agricultural Productivity reportable segments, as well as for Monsanto's significant operating segments, is presented in the table that follows:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
Net Sales[1]			
Corn seed and traits	**$ 6,270**	$ 5,825	$ 5,953
Soybean seed and traits	**2,662**	2,162	2,276
Cotton seed and traits	**615**	440	523
Vegetable seeds	**815**	801	816
All other crops seeds and traits	**551**	760	675
Total Seeds and Genomics	**$10,913**	$ 9,988	$10,243
Agricultural productivity	**3,727**	3,514	4,758
Total Agricultural Productivity	**$ 3,727**	$ 3,514	$ 4,758
Total	**$14,640**	$13,502	$15,001
Gross Profit			
Corn seed and traits	**$ 3,975**	$ 3,450	$ 3,557
Soybean seed and traits	**1,884**	1,399	1,510
Cotton seed and traits	**457**	282	408
Vegetable seeds	**435**	401	372
All other crops seeds and traits	**294**	542	430
Total Seeds and Genomics	**$ 7,045**	$ 6,074	$ 6,277
Agricultural productivity	**892**	943	1,905
Total Agricultural Productivity	**$ 892**	$ 943	$ 1,905
Total	**$ 7,937**	$ 7,017	$ 8,182
EBIT[2][3][4]			
Seeds and genomics	**$ 2,910**	$ 2,292	$ 2,206
Agricultural productivity	**353**	116	1,294
Total	**$ 3,263**	$ 2,408	$ 3,500
Depreciation and Amortization Expense			
Seeds and genomics	**$ 585**	$ 593	$ 586
Agricultural productivity	**163**	134	130
Total	**$ 748**	$ 727	$ 716
Equity Affiliate Loss (Income)[5]			
Seeds and genomics	**$ 18**	$ 13	$ 13
Agricultural productivity	**(1)**	(1)	—
Total	**$ 17**	$ 12	$ 13
Total Assets			
Seeds and genomics	**$16,768**	$15,772	$17,330
Agricultural productivity	**4,565**	3,964	4,590
Total	**$21,333**	$19,736	$21,920
Property, Plant and Equipment Purchases			
Seeds and genomics	**$ 757**	$ 727	$ 762
Agricultural productivity	**483**	196	205
Total	**$ 1,240**	$ 923	$ 967
Investment in Equity Affiliates			
Seeds and genomics	**$ 137**	$ 152	$ 114
Agricultural productivity	**29**	—	—
Total	**$ 166**	$ 152	$ 114

[1] Represents net sales from continuing operations

[2] EBIT is defined as earnings (loss) before interest and taxes; see the following table for reconciliation. Earnings (loss) is intended to mean net income (loss) attributable to Monsanto Company as presented in the Statements of Consolidated Operations under GAAP. EBIT is an operating performance measure for the two reportable segments.

[3] Agricultural Productivity EBIT includes income of $21 million, $27 million and $45 million from discontinued operations for fiscal 2017, 2016 and 2015, respectively.

[4] For the twelve months ended Aug. 31, 2017, 2016 and 2015, Seeds and Genomics EBIT includes losses from operations of noncontrolling interest of $19 million, income from operations of noncontrolling interest of $30 million and losses from operations of noncontrolling interest of $32 million, respectively. For the twelve months ended Aug. 31, 2017, 2016 and 2015, Agricultural Productivity EBIT includes losses from operations of noncontrolling interest of $1 million, $2 million and $2 million, respectively.

[5] Equity affiliate loss (income) is included in other (income) expense, net in the Statements of Consolidated Operations.

Notes to the Consolidated Financial Statements *(continued)*

A reconciliation of EBIT to net income for each period follows:

	Year Ended Aug. 31,		
(Dollars in millions)	**2017**	2016	2015
EBIT[1]	**$3,263**	$2,408	$3,500
Interest Expense — Net	**376**	362	328
Income Tax Provision[2]	**627**	710	858
Net Income Attributable to Monsanto Company	**$2,260**	$1,336	$2,314

[1] Includes the income from operations of discontinued businesses and the income (loss) from operations of noncontrolling interests.
[2] Includes the income tax provision on discontinued operations and the income tax expense (benefit) of noncontrolling interest.

Net sales and long-lived assets are attributed to the geographic areas of the relevant Monsanto legal entities. For example, a sale from the United States to a customer in Brazil is reported as a U.S. export sale.

	Net Sales to Unaffiliated Customers			Long-Lived Assets	
	Year Ended Aug. 31,			As of Aug. 31,	
(Dollars in millions)	**2017**	2016	2015	**2017**	2016
United States	**$ 8,235**	$ 8,008	$ 8,612	**$ 8,547**	$ 7,779
Europe-Africa	**1,841**	1,536	1,834	**1,591**	1,321
Brazil	**1,782**	1,437	1,725	**746**	665
Argentina	**969**	856	871	**352**	345
Asia-Pacific	**552**	483	686	**258**	277
Canada	**734**	619	601	**97**	87
Mexico	**415**	436	537	**140**	138
Other	**112**	127	135	**387**	354
Total	**$14,640**	$13,502	$15,001	**$12,118**	$10,966

Notes to the Consolidated Financial Statements *(continued)*

NOTE 26. QUARTERLY DATA (UNAUDITED)

The following tables include financial data for the fiscal year quarters in 2017 and 2016 which have been adjusted for discontinued operations.

(Dollars in millions, except per share amounts)

2017	1st[2][3] Quarter	2nd[4][5] Quarter	3rd[6][7] Quarter	4th[8][9] Quarter	Total
Net Sales	**$2,650**	**$5,074**	**$4,230**	**$2,686**	**$14,640**
Gross Profit	**1,259**	**2,952**	**2,386**	**1,340**	**7,937**
Income from Continuing Operations Attributable to Monsanto Company	**19**	**1,365**	**843**	**20**	**2,247**
Income on Discontinued Operations	**10**	**3**	**—**	**—**	**13**
Net Income	**35**	**1,366**	**847**	**25**	**2,273**
Net Income Attributable to Monsanto Company	**$ 29**	**$1,368**	**$ 843**	**$ 20**	**$ 2,260**
Basic Earnings per Share Attributable to Monsanto Company:[1]					
Income from continuing operations	**$ 0.05**	**$ 3.11**	**$ 1.92**	**$ 0.05**	**$ 5.12**
Income on discontinued operations	**0.02**	**0.01**	**—**	**—**	**0.03**
Net Income Attributable to Monsanto Company	**$ 0.07**	**$ 3.12**	**$ 1.92**	**$ 0.05**	**$ 5.15**
Diluted Earnings per Share Attributable to Monsanto Company:[1]					
Income from continuing operations	**$ 0.05**	**$ 3.08**	**$ 1.90**	**$ 0.05**	**$ 5.06**
Income on discontinued operations	**0.02**	**0.01**	**—**	**—**	**0.03**
Net Income Attributable to Monsanto Company	**$ 0.07**	**$ 3.09**	**$ 1.90**	**$ 0.05**	**$ 5.09**

2016					
Net Sales	$2,219	$4,532	$4,189	$2,562	$13,502
Gross Profit	901	2,598	2,380	1,138	7,017
(Loss) Income from Continuing Operations Attributable to Monsanto Company	(265)	1,060	717	(193)	1,319
Income on Discontinued Operations	12	3	—	2	17
Net (Loss) Income	(257)	1,060	715	(205)	1,313
Net (Loss) Income Attributable to Monsanto Company	$ (253)	$1,063	$ 717	$ (191)	$ 1,336
Basic (Loss) Earnings per Share Attributable to Monsanto Company:[1]					
(Loss) Income from continuing operations	$ (0.58)	$ 2.42	$ 1.64	$ (0.44)	$ 2.98
Income on discontinued operations	0.02	—	—	—	0.04
Net (Loss) Income Attributable to Monsanto Company	$ (0.56)	$ 2.42	$ 1.64	$ (0.44)	$ 3.02
Diluted (Loss) Earnings per Share Attributable to Monsanto Company:[1]					
(Loss) Income from continuing operations	$ (0.58)	$ 2.40	$ 1.63	$ (0.44)	$ 2.95
Income on discontinued operations	0.02	0.01	—	—	0.04
Net (Loss) Income Attributable to Monsanto Company	$ (0.56)	$ 2.41	$ 1.63	$ (0.44)	$ 2.99

[1] Because Monsanto reported a loss from continuing operations in the first quarter and fourth quarter fiscal 2016, generally accepted accounting principles require diluted loss per share to be calculated using weighted-average common shares outstanding, excluding common stock equivalents. As a result, the quarterly earnings (loss) per share may not total to the full-year amount.

[2] In the first quarter of fiscal 2017, the company recorded $1 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $8 million of selling, general and administrative expenses related to environmental and litigation matters, $130 million in charges for pending Bayer transaction related costs with $93 million recorded in pending Bayer transaction related costs and $37 million recorded in other (income) expense, net related to pending Bayer transaction related costs and $36 million of a net reversal of expense of restructuring charges with a combined corresponding income tax benefit of $42 million. The company also recorded net charges related to Argentine-related tax matters of $10 million, which resulted from a translation gain recorded in other (income) expense, net of $18 million and net charge against tax expense of $28 million based on similar circumstances as noted below in the third quarter of fiscal 2016.

[3] In the first quarter of fiscal 2016, the company recorded $52 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $5 million of selling, general and administrative expenses related to environmental and litigation matters and $266 million of restructuring charges with a combined corresponding income tax benefit of $110 million.

[4] In the second quarter of fiscal 2017, the company divested its European-based silthiofam seed-treatment chemical business previously reported as part of the Agricultural Productivity segment resulting in a gain of $83 million in 2017 within other (income) expense, net in the Statements of Consolidated Operations with a corresponding income tax provision of $8 million. The company also recorded $6 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $9 million of selling, general and administrative expenses related to environmental and litigation matters, $27 million in charges recorded to pending Bayer transaction related costs and $23 million of restructuring charges related to the 2015 Restructuring Plan with a combined corresponding income tax benefit of $28 million. The company also recorded a charge related to Argentine-related tax matters of $7 million, which resulted from a translation loss recorded in other (income) expense, net based on similar circumstances as noted below in the third quarter of fiscal 2016.

[5] In the second quarter of fiscal 2016, the company recorded $3 million of selling, general and administrative expenses related to environmental and litigation matters and a SEC settlement and $9 million of restructuring charges related to the 2015 Restructuring Plan with a combined corresponding income tax benefit of $4 million.

[6] In the third quarter of fiscal 2017, the company recorded $14 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $6 million of a net reversal of selling, general and administrative expenses related to environmental and litigation matters, $33 million in charges recorded to pending Bayer transaction related costs and $17 million of a net reversal of expense of restructuring charges with a combined corresponding income tax benefit of $7 million. The company also recorded a net reversal of charges related to Argentine-related tax matters of $2 million, which resulted from a translation gain recorded in other (income) expense, net of $11 million and a net charge against tax expense of $9 million based on similar circumstances as noted below in the third quarter of fiscal 2016.

[7] In the third quarter of fiscal 2016, the company recorded $210 million of net sales as a result of agreements entered into related to the company's alfalfa traits and technology, which resulted in upfront revenue accounted for as an exclusive perpetual license to intellectual property, with a corresponding income tax provision of $74 million. The company also recorded $1 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $16 million of selling, general and administrative expenses related to environmental and litigation matters and $15 million of restructuring charges with a combined corresponding income tax benefit of $13 million. The company also recorded a net tax charge of $219 million due to losses generated in Argentina in fiscal 2016 as well as uncertainties around the Argentina business. The company evaluated the recoverability of various items on the Statement of Consolidated Financial Position related to the Argentina business and determined an allowance against certain assets was necessary, which resulted in the net charge to tax expense.

Notes to the Consolidated Financial Statements *(continued)*

[8] In the fourth quarter of fiscal 2017, the company granted a licensee the right to certain corn licenses in Brazil which resulted in revenue of $227 million, with no corresponding income tax provision. The company also recorded $4 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $22 million of selling, general and administrative expenses related to environmental and litigation matters, $32 million in charges recorded to pending Bayer transaction related costs and $6 million of a net reversal of expense of restructuring charges with a combined corresponding income tax benefit of $20 million. The company also recorded a net charge of $30 million, which resulted from a translation gain recorded in other (income) expense, net of $21 million and a net charge against tax expense of $51 million based on similar circumstances as noted above in the third quarter of fiscal 2016.

[9] In the fourth quarter of fiscal 2016, the company recorded a $157 million gain in other expense, net as a result of the company signing definitive agreements to sell certain manufacturing assets and contribute to a newly-formed joint venture certain intellectual property, real property and tangible assets related to the company's sorghum business, with a corresponding income tax provision of $47 million. The company also recorded $14 million of cost of goods sold expenses related to the 2015 Restructuring Plan, $246 million of selling, general and administrative expenses related to environmental and litigation matters and a SEC settlement and $7 million of restructuring charges with a combined corresponding income tax benefit of $77 million. The company also recorded a net tax charge of $33 million for Argentine-related tax matters based on similar circumstances as noted above in the third quarter of fiscal 2016.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of August 31, 2017. The term ''disclosure controls and procedures,'' as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Based upon the evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of August 31, 2017.

Management's Annual Report on Internal Control over Financial Reporting

Management of Monsanto Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including the Chief Executive Officer and the Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in *Internal Control — Integrated Framework (2013),* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based on our evaluation under the COSO framework, management concluded that the company maintained effective internal control over financial reporting as of August 31, 2017.

The company's independent registered public accounting firm, Deloitte & Touche LLP, was appointed by the Audit and Finance Committee of the company's Board of Directors, and ratified by the company's shareowners. Deloitte & Touche LLP has audited and reported on the Consolidated Financial Statements of Monsanto Company and subsidiaries and the effectiveness of the company's internal control over financial reporting. The reports of the independent registered public accounting firm are contained in Item 8 and Item 9A of this Annual Report.

Hugh Grant
Chairman and Chief Executive Officer

Pierre Courduroux
Senior Vice President and Chief Financial Officer

October 27, 2017

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareowners of Monsanto Company:

We have audited the internal control over financial reporting of Monsanto Company and subsidiaries (the ''Company'') as of August 31, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of August 31, 2017, based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the statement of consolidated financial position as of August 31, 2017, and the related statements of consolidated operations, comprehensive income, cash flows, and shareowners' equity for the year ended August 31, 2017 of the Company and our report dated October 27, 2017 expressed an unqualified opinion on those financial statements.

Deloitte & Touche LLP

St. Louis, Missouri
October 27, 2017

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting during the company's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following information is expected to be included in an amendment to this Form 10-K or in Monsanto Company's definitive proxy statement for the 2018 Annual Meeting of Shareowners (Proxy Statement), and is incorporated herein by reference:

- Information appearing under the heading ''Director Nominees,'' including biographical information regarding nominees for election to, and members of, the Board of Directors;
- Information appearing under the heading ''Section 16(a) Beneficial Ownership Reporting Compliance''; and
- Information appearing under the heading ''Board Meetings, Committees and Membership — Board Committees — Audit and Finance Committee,'' regarding the membership and function of the Audit and Finance Committee, and the financial expertise of its members.

Monsanto has adopted a Code of Ethics for Chief Executive and Senior Financial Officers (Code), which applies to its Chief Executive Officer and the senior leadership of its finance department, including its Chief Financial Officer and Controller. This Code is available on our website at www.monsanto.com, under the caption ''Company — Governance.'' Any amendments to, or waivers from, the provisions of the Code will be posted to that same location within four business days and will remain on the website for at least a 12-month period.

The following information with respect to the executive officers of the company on October 27, 2017, is included pursuant to Instruction 3 of Item 401(b) of Regulation S-K:

Name — Age	Present Position with Registrant	Year First Became an Executive Officer	Other Business Experience since Sept. 1, 2012*
Brett D. Begemann, 56	President and Chief Operating Officer	2003	President and Chief Commercial Officer - Monsanto Company, 8/12-10/13; present position, 10/13
Pierre Courduroux, 52	Senior Vice President and Chief Financial Officer	2011	Present position, 1/11
Robert T. Fraley, 64	Executive Vice President and Chief Technology Officer	2000	Present position, 8/00
Hugh Grant, 59	Chairman of the Board and Chief Executive Officer	2000	Present position, 8/12
Janet M. Holloway, 63	Senior Vice President, Chief of Staff and Community Relations	2000	Present position, 10/07
Steven C. Mizell, 57	Executive Vice President and Chief Human Resources Officer	2004	Executive Vice President, Human Resources - Monsanto Company, 8/07-4/16; present position, 4/16
Duraiswami Narain, 54	Vice President and Treasurer	2015	India Regional Business Lead - Monsanto Company, 07/10-02/13; International Finance Lead - Monsanto Company, 03/13- 08/14; Assistant Treasurer - Monsanto Company, 09/14-10/15; present position, 11/15
Kerry J. Preete, 57	Executive Vice President and Chief Strategy Officer	2008	Executive Vice President, Global Strategy - Monsanto Company, 8/12-4/16; present position, 4/16
Nicole M. Ringenberg, 56	Vice President and Controller	2007	Present position, 12/09
David F. Snively, 63	Executive Vice President, Secretary and General Counsel	2006	Present position, 9/10
Michael K. Stern, 56	Vice President, Chief Executive Officer - Climate	2013	Lead, U.S. Row Crops - Monsanto Company, 8/09-12/12; Lead, Americas Row Crops - Monsanto Company, 1/13-7/13; Vice President, Americas Row Crops - Monsanto Company, 8/13-9/14; Vice President, Monsanto Company and President and Chief Operating Officer - Climate, 9/14-2/16; present position, 2/16

* Prior to Sept. 1, 2000, the businesses of the current Monsanto Company were the agricultural division of Pharmacia LLC.

Item 11. EXECUTIVE COMPENSATION

Information appearing in an amendment to this Form 10-K or under the following headings of the Proxy Statement is incorporated herein by reference: ''Compensation Committee Interlocks and Insider Participation''; ''Board Role in Risk Oversight and Assessment''; ''Compensation of Directors''; ''Report of the People and Compensation Committee''; ''Compensation Discussion and Analysis''; and ''Executive Compensation Tables.''

The information contained in ''Report of the People and Compensation Committee'' shall not be deemed to be ''filed'' with the Securities and Exchange Commission or subject to the liabilities of the Exchange Act, except to the extent that the company specifically incorporates such information into a document filed under the Securities Act or the Exchange Act.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information appearing in an amendment to this Form 10-K or in the Proxy Statement under the headings ''Equity Compensation Plan Table'' and ''Stock Ownership of Management and Certain Beneficial Owners'' is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information appearing in an amendment to this Form 10-K or in the Proxy Statement under the headings ''Related Person Transactions Policy'' and ''Director Independence'' is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information regarding fees paid to our independent registered public accounting firm and approval of services by our audit and finance committee that appears in an amendment to this Form 10-K or in the Proxy Statement under the heading ''Proxy Item No. 2: Ratification of Independent Registered Public Accounting Firm'' is incorporated herein by reference.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Report:

(1) The following financial statements appearing in Item 8: ''Statements of Consolidated Operations''; ''Statements of Consolidated Comprehensive Income''; ''Statements of Consolidated Financial Position''; ''Statements of Consolidated Cash Flows''; and ''Statements of Consolidated Shareowners' Equity.''

(2) Exhibits: The exhibits as listed in the Exhibit Index below will be filed with the SEC but will not be included in the printed version of the Annual Report to Shareowners.

EXHIBIT INDEX

These Exhibits are numbered in accordance with the Exhibit Table of Item 601 of Regulation S-K.

Exhibit No.		Description
2	**1.**	Separation Agreement, dated as of Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 2.1 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).*
	2.	First Amendment to Separation Agreement, dated July 1, 2002, between Pharmacia and the company (incorporated by reference to Exhibit 99.2 of Form 8-K, filed July 30, 2002, File No. 1-16167).*
	3.	Agreement and Plan of Merger, dated September 14, 2016, by and among Bayer Aktiengesellschaft, KWA Investment Co. and Monsanto Company (incorporated by reference to Exhibit 2.1 of Form 8-K, filed September 20, 2016, File No. 1-16167). * **
3	**1.**	Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of Form 10-Q, filed June 27, 2013, File No. 1-16167).
	2.	Monsanto Company Amended and Restated Bylaws, as amended effective August 12, 2016 (incorporated by reference to Exhibit 3.2(ii) of Form 8-K, filed August 18, 2016, File No. 1-16167).
4	**1.**	Indenture, dated as of Aug. 1, 2002, between the company and The Bank of New York Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.2 of Form 8-K, filed Aug. 31, 2005, File No. 1-16167).
	2.	Form of Registration Rights Agreement, dated Aug. 25, 2005, relating to 51/2% Senior Notes due 2025 of the company (incorporated by reference to Exhibit 4.3 of Form 8-K, filed Aug. 31, 2005, File No. 1-16167).
	3.	Indenture, dated as of July 1, 2014, between Monsanto Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.1 of Form 8-K, filed July 1, 2014, File No. 1-16167).
9	Omitted	
10	**1.**	Tax Sharing Agreement, dated July 19, 2002, between the company and Pharmacia (incorporated by reference to Exhibit 10.4 of Form 10-Q for the period ended June 30, 2002, File No. 1-16167).
	2.	Employee Benefits and Compensation Allocation Agreement between Pharmacia and the company, dated as of Sept. 1, 2000 (incorporated by reference to Exhibit 10.7 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	2.1.	Amendment to Employee Benefits and Compensation Allocation Agreement between Pharmacia and the company, dated Sept. 1, 2000 (incorporated by reference to Exhibit 10.2.1 of Form 10-K for the period ended Dec. 31, 2001, File No. 1-16167).
	3.	Intellectual Property Transfer Agreement, dated Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 10.8 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	4.	Services Agreement, dated Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 10.9 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	5.	Corporate Agreement, dated Sept. 1, 2000, between the company and Pharmacia (incorporated by reference to Exhibit 10.10 of Amendment No. 2 to Registration Statement on Form S-1, filed Sept. 22, 2000, File No. 333-36956).
	6.	Agreement among Solutia, Pharmacia and the company, relating to settlement of certain litigation (incorporated by reference to Exhibit 10.30 of Form 10-K for the transition period ended Aug. 31, 2003, File No. 1-16167).
	7.	Global Settlement Agreement, executed Sept. 9, 2003, in the U.S. District Court for the Northern District of Alabama, and in the Circuit Court of Etowah County, Alabama (incorporated by reference to Exhibit 10.31 of Form 10-K for the transition period ended Aug. 31, 2003, File No. 1-16167).
	8.	Solutia's Fifth Amended Joint Plan of Reorganization Pursuant to Chapter 11 of the Bankruptcy Code (As Modified) (incorporated by reference to Exhibit 2.1 of Solutia's Form 8-K filed Dec. 5, 2007, SEC File No. 001-13255).
	9.	Amended and Restated Settlement Agreement dated February 28, 2008, by and among Solutia Inc., Monsanto Company and SFC LLC (incorporated by reference to Exhibit 10.1 of Solutia's Form 8-K filed March 5, 2008, SEC File No. 001-13255).
	10.	First Amended and Restated Retiree Settlement Agreement dated as of July 10, 2007, among Solutia Inc., the company and the claimants set forth therein (incorporated by reference to Exhibit 10.3 of Solutia's Form 8-K filed March 5, 2008, SEC File No. 001-13255).
	11.	Letter Agreement between the company and Pharmacia, effective Aug. 13, 2002 (incorporated by reference to Exhibit 10.6 of Form 10-Q for the period ended June 30, 2002, File No. 1-16167).
	12.	Five-Year Credit Agreement dated March 27, 2015 (incorporated by reference to Exhibit 10.1 of Form 8-K, filed on April 2, 2015, File No. 1-16167).
	12.1.	Master Confirmation-Uncollared Share Repurchase dated October 9, 2015 between Monsanto Company and Citibank, N.A. (incorporated by reference to Exhibit 10.1 of Form 8-K, filed Oct. 9, 2015, File No. 1-16167).
	12.2.	Master Confirmation-Uncollared Share Repurchase dated October 9, 2015 between Monsanto Company and JPMorgan Chase Bank, N.A. (incorporated by reference to Exhibit 10.2 of Form 8-K, filed Oct. 9, 2015, File No. 1-16167).
	13.	The Monsanto Company Non-Employee Director Equity Incentive Compensation Plan, as amended and restated, effective September 1, 2016 (incorporated by reference to Exhibit 10.13 of Form 10-K for the period ended Aug. 31, 2016, File No. 1-16167).†
	14.	Monsanto Company Long-Term Incentive Plan, as amended and restated, effective April 24, 2003 (formerly known as Monsanto 2000 Management Incentive Plan) (incorporated by reference to Appendix C to Notice of Annual Meeting and Proxy Statement dated March 13, 2003, File No. 1-16167).†
	14.1.	First Amendment, effective Jan. 29, 2004, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.16.1 of Form 10-Q for the period ended Feb. 29, 2004, File No. 1-16167).†

Exhibit No.	Description
14.2.	Second Amendment, effective Oct. 23, 2006, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.18.2 of Form 10-K for the period ended Aug. 31, 2006, File No. 1-16167).†
14.3.	Third Amendment, effective June 14, 2007, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.19.3 of Form 10-K for the period ended Aug. 31, 2007, File No. 1-16167).†
14.4.	Fourth Amendment, effective June 14, 2007, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.19.4 of Form 10-K for the period ended Aug. 31, 2007, File No. 1-16167).†
14.5.	Fifth Amendment, effective Sept. 1, 2010, to the Monsanto Company Long-Term Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.1 to Form 8-K, filed Sept. 1, 2010, File No. 1-16167).†
14.6.	Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved on Aug. 6, 2007 (incorporated by reference to Exhibit 10.3 of Form 8-K, filed Aug. 10, 2007, File No. 1-16167).†
14.7.	Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as of Oct. 2008 (incorporated by reference to Exhibit 10.19.7 of Form 10-K for the period ended Aug. 31, 2009, File No. 1-16167).†
14.8.	Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved on Oct. 25, 2010 (incorporated by reference to Exhibit 10.14.9 of Form 10-K for the period ended Aug. 31, 2010, File No. 1-16167).†
14.9.	Form of Terms and Conditions of Option Grant Under the Monsanto Company Long-Term Incentive Plan and the Monsanto Company 2005 Long-Term Incentive Plan, as approved on Aug. 24, 2011 (incorporated by reference to Exhibit 10.14.10 of Form 10-K for the period ended Aug. 31, 2011, File No. 1-16167).†
15.	Monsanto Company 2005 Long-Term Incentive Plan, as amended (incorporated by reference to the Monsanto Company Proxy Statement, filed Dec. 13, 2016, File No. 1-16167).†
15.1.	Form of Terms and Conditions of Option Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Aug. 29, 2012 (incorporated by reference to Exhibit 10.2 of Form 8-K, filed Aug. 31, 2012, File No. 1-16167).†
15.2.	Form of Terms and Conditions of Option Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Sept. 24, 2015 (incorporated by reference to Exhibit 10.15.2 of Form 10-K for the period ended Aug. 31, 2015, File No. 1-16167).†
15.3.	Form of Terms and Conditions of Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Aug. 29, 2012 (incorporated by reference to Exhibit 10.4 of Form 8-K, filed Aug. 31, 2012, File No. 1-16167).†
15.4.	Form of Terms and Conditions of Restricted Stock Units Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Sept. 24, 2015 (incorporated by reference to Exhibit 10.15.4 of Form 10-K for the period ended Aug. 31, 2015, File No. 1-16167).†
15.5.	Form of Terms and Conditions of Financial Goal Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Sept. 24, 2015 (incorporated by reference to Exhibit 10.15.6 of Form 10-K for the period ended Aug. 31, 2015, File No. 1-16167).†
15.6.	Form of Terms and Conditions of Financial Goal Restricted Stock Units for Chairman and CEO Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Oct. 27, 2014 (incorporated by reference to Exhibit 10.15.10 of Form 10-K for the period ended Aug. 31, 2014, File No. 1-16167).†
15.7.	Form of Terms and Conditions of Financial Goal Restricted Stock Units for CEO and Certain Other Executive Officers Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012), as approved on Sept. 24, 2015 (incorporated by reference to Exhibit 10.15.8 of Form 10-K for the period ended Aug. 31, 2015, File No. 1-16167).†
15.8.	Form of Terms and Conditions of Retention and Performance Restricted Stock Unit Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012) (incorporated by reference to Exhibit 10.1 of Form 10-Q for the period ended Nov. 30, 2013, File No. 1-16167).†
15.9.	Form of Terms and Conditions of Retention and Performance Restricted Stock Unit Grant Under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of Jan. 24, 2012) as approved on Sept. 24, 2015 (incorporated by reference to Exhibit 10.15.10 of Form 10-K for the period ended Aug. 31, 2015, File No. 1-16167).†
15.10.	Forms of Terms and Conditions of Restricted Share Grant to Non-Employee Director [Elective Retainer Amount] under the Monsanto Company 2005 Long-Term Incentive Plan, as amended and restated as of January 24, 2012 (incorporated by reference to Exhibit 10.3 of Form 10-Q for the period ended May 31, 2012, File No. 1-16167).†
15.11.	Forms of Terms and Conditions of Restricted Shares Grant to Non-Employee Director [Inaugural Grant] under the Monsanto Company 2005 Long-Term Incentive Plan, as amended and restated as of January 24, 2012 (incorporated by reference to Exhibit 10.4 of Form 10-Q for the period ended May 31, 2012, File No. 1-16167).†
15.12.	Form of Terms and Conditions of Restricted Share Grant to Non-Employee Director [International Elective Retainer Amount] under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of January 24, 2012), as approved on May 27, 2014 (incorporated by reference to Exhibit 10.15.14 of Form 10-K for the period ended Aug. 31, 2014, File No. 1-16167).†
15.13.	Form of Terms and Conditions of Restricted Shares Grant to Non-Employee Director [International Inaugural Grant] under the Monsanto Company 2005 Long-Term Incentive Plan (as Amended and Restated as of January 24, 2012), as approved on May 27, 2014 (incorporated by reference to Exhibit 10.15.15 of Form 10-K for the period ended Aug. 31, 2014, File No. 1-16167).†
15.14.	Form of Terms and Conditions of Time-Based Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan (as amended and Restated as of Jan. 24, 2012), as approved on Oct. 17, 2016 (incorporated by reference to Exhibit 10.15.15 of Form 10-K for the period ended Aug. 31, 2016, File No. 1-16167).†

Exhibit No.	Description
15.15.	Form of Terms and Conditions of Financial Goal Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan (as amended and Restated as of Jan. 24, 2012), as approved on Oct. 17, 2016 (incorporated by reference to Exhibit 10.15.16 of Form 10-K for the period ended Aug. 31, 2016, File No. 1-16167).†
15.16.	Form of Terms and Conditions of Time-Based Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan, as amended, as approved on Aug. 9, 2017.†
15.17.	Form of Terms and Conditions of Financial Goal Restricted Stock Units Under the Monsanto Company 2005 Long-Term Incentive Plan, as amended, as approved on Aug. 9, 2017.†
16.	Monsanto Company Deferred Payment Plan Amended and Restated as of May 1, 2015 (incorporated by reference to Exhibit 10.2 of Form 10-Q for the period ended May 31, 2015, File No. 1-16167).†
17.	Monsanto Company ERISA Parity Savings and Investment Plan, as amended and restated as of January 1, 2016 (incorporated by reference to Exhibit 10.1 of Form 10-Q for the period ended Nov. 30, 2016, File No. 1-16167).†
18.	Monsanto Company Phantom Share Unit Retention Plan for Long-Term International Assignees, amended and restated on Dec. 15, 2008 (incorporated by reference to Exhibit 10.17 of Form 10-K for the period ended Aug. 31, 2010, File No. 1-16167).†
18.1.	Form of Terms and Conditions of Units Under the Monsanto Company Phantom Share Unit Retention Plan for Long-Term International Assignees, amended and restated on Dec. 15, 2008 (incorporated by reference to Exhibit 10.17.1 of Form 10-K for the period ended Aug. 31, 2010, File No. 1-16167).†
19.	Annual Incentive Program for Certain Executive Officers (incorporated by reference to the description appearing under the sub-heading ''Proxy Item No. 4: Approval of Performance Goals Under the Monsanto Company Code Section §162(m) Annual Incentive Plan for Covered Executives'' on pages 84-85 of the Proxy Statement filed Dec. 10, 2015, File No. 1-16167) (incorporated by reference to Exhibit 10.1 of Form 10-Q for the period ended Feb. 29, 2016, File No. 1-16167).†
20.	Annual Incentive Plan, as approved on Aug. 9, 2017.†
21.1.	Form of Change of Control Employment Security Agreement for Messrs. Begemann, Grant and Mizell, effective Sept. 1, 2010 (incorporated by reference to Exhibit 10 of Form 8-K, filed on Sept. 7, 2010, File No. 1-16167).†
21.2.	Form of Change of Control Employment Security Agreement for Mr. Courduroux, effective Feb. 4. 2011 (incorporated by reference to Exhibit 10 of Form 8-K, filed on Feb. 10, 2011, File No. 1-16167).†
22.	Monsanto Company Executive Health Management Program, as amended and restated as of Oct. 25, 2010 (incorporated by reference to Exhibit 10.22 of Form 10-K for the period ended Aug. 31, 2010, File No. 1-16167).†
23.	Amended and Restated Monsanto Company Recoupment Policy, as approved on Oct. 27, 2009 (incorporated by reference to Exhibit 10.27 of Form 10-K for the period ended Aug. 31, 2009, File No. 1-16167).†
24.	Monsanto Benefits Plan for Third Country Nationals (incorporated by reference to Exhibit 10.2 of Form 8-K, filed Aug. 11, 2008, File No. 1-16167).†
24.1.	Amendment to Monsanto Benefits Plan for Third Country Nationals, effective Aug. 5, 2008 (incorporated by reference to Exhibit 10.3 of Form 8-K, filed Aug. 11, 2008, File No. 1-16167).†
11	Omitted — see Item 8 — Note 22 — Earnings per Share.
12	Statements Re Computation of Ratios.
13	Omitted
14	Omitted — Monsanto's Code of Ethics for Chief Executive and Senior Financial Officers is available on our website at www.monsanto.com/company/governance.
16	Omitted
18	Omitted
21	Subsidiaries of the Registrant.
22	Omitted
23	Consent of Independent Registered Public Accounting Firm.
31 **1.**	Rule 13a-14(a)/15d-14(a) Certifications (pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, executed by Chief Executive Officer).
2.	Rule 13a-14(a)/15d-14(a) Certifications (pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, executed by Chief Financial Officer).
32	Rule 13a-14(b) Certifications (pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by the Chief Executive Officer and the Chief Financial Officer).
95	Mine Safety Disclosures.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

* Schedules and similar attachments to this Agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The registrant will furnish supplementally a copy of any omitted schedule or similar attachment to the SEC upon request.

** The Merger Agreement has been included to provide investors with information regarding its terms. It is not intended to provide any other factual information about the company, Bayer or their respective subsidiaries or affiliates. The representations, warranties and covenants contained in the Merger Agreement were made only for purposes of the Merger Agreement as of the specific dates therein, were solely for the benefit of the parties to the Merger Agreement, may be subject to limitations agreed upon by the contracting parties (including being qualified by confidential disclosures made for the purposes of allocating contractual risk among the parties to the Merger Agreement instead of establishing these matters as facts) and may be subject to standards of materiality applicable to the contracting parties that differ from those applicable to investors. Investors are not third-party beneficiaries under the Merger Agreement (except with respect to company stockholders', optionholders' and other awardholders' right to receive the applicable consideration following the Effective Time) and should not rely on the representations, warranties and covenants or any descriptions thereof as characterizations of the actual state of facts or condition of the parties thereto or any of their respective subsidiaries or affiliates. Moreover, information concerning the subject matter of representations and warranties may change after the date of the Merger Agreement, which subsequent information may or may not be reflected in the company's public disclosures.

† Represents management contract or compensatory plan or arrangement.

Monsanto Company agrees to furnish to the Securities and Exchange Commission, upon request, copies of any long-term debt instruments that authorize an amount of securities constituting 10 percent or less of the total assets of the company and its subsidiaries on a consolidated basis.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

MONSANTO COMPANY

(Registrant)

By: /s/ NICOLE M. RINGENBERG

Nicole M. Ringenberg

Vice President and Controller

(Principal Accounting Officer)

Date: October 27, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ DWIGHT M. BARNS (Dwight M. Barns)	Director	October 27, 2017
/s/ GREGORY H. BOYCE (Gregory H. Boyce)	Director	October 27, 2017
/s/ DAVID L. CHICOINE (David L. Chicoine)	Director	October 27, 2017
/s/ JANICE L. FIELDS (Janice L. Fields)	Director	October 27, 2017
/s/ HUGH GRANT (Hugh Grant)	Chairman of the Board and Chief Executive Officer, Director (Principal Executive Officer)	October 27, 2017
/s/ LAURA K. IPSEN (Laura K. Ipsen)	Director	October 27, 2017
/s/ MARCOS M. LUTZ (Marcos M. Lutz)	Director	October 27, 2017
/s/ C. STEVEN MCMILLAN (C. Steven McMillan)	Director	October 27, 2017
/s/ JON R. MOELLER (Jon R. Moeller)	Director	October 27, 2017
(George H. Poste)	Director	
/s/ ROBERT J. STEVENS (Robert J. Stevens)	Director	October 27, 2017
/s/ PATRICIA VERDUIN (Patricia Verduin)	Director	October 27, 2017
/s/ PIERRE COURDUROUX (Pierre Courduroux)	Senior Vice President, Chief Financial Officer (Principal Financial Officer)	October 27, 2017
/s/ NICOLE M. RINGENBERG (Nicole M. Ringenberg)	Vice President and Controller (Principal Accounting Officer)	October 27, 2017

Shareowner Information

Dividend Policy

The declaration and payment of quarterly dividends is made at the discretion of Monsanto's board of directors. The dividend policy is reviewed by the board quarterly. We are subject to restrictions under the merger agreement with Bayer that restricts our ability to pay dividends in excess of certain thresholds.

Transfer Agent and Registrar

To request or send information, contact:
Computershare
PO Box 505000
Louisville, KY 40233

Telephone

(888) 725-9529
Toll-free within the United States and Canada

(201) 680-6578
Outside the United States and Canada

Telephone for the Hearing Impaired

(800) 952-9245
Toll-free within the United States and Canada

(781) 575-4592
Outside the United States and Canada

On the Internet

If you are a registered shareowner, you can access your Monsanto account online by going to computershare.com/investor.

Direct Stock Purchase Plan

The Investor Services Program allows shareowners to reinvest dividends in Monsanto Company common stock automatically. Shareowners can also purchase common shares through an optional cash investment feature. For more information on the program, contact Computershare at the address above.

Notice and Access Delivery

We have elected to take advantage of the Securities and Exchange Commission's rule that allows us to furnish our annual report and proxy materials to shareowners online. We believe electronic delivery will expedite the receipt of materials, while lowering costs and reducing the environmental impact of our annual meeting by reducing printing and mailing of full sets of materials.

Certifications

The most recent certifications by our chief executive officer and chief financial officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to our Form 10-K. We have also filed with the New York Stock Exchange the most recent Annual CEO Certification, as required by the New York Stock Exchange.

Additional Shareowner Information

Shareowner, financial, and other information about Monsanto is available to you free of charge from several sources throughout the year. These materials include quarterly earnings statements, significant news releases, and Forms 10-K, 10-Q, and 8-K, which are filed with the U.S. Securities and Exchange Commission.

On the Internet

You can find financial and other information, such as significant news releases, Forms 10-K, 10-Q, and 8-K, and the text of this annual report, on the Internet at Monsanto.com.

By Writing

You can also request these materials by writing to:
Monsanto Company—Materialogic
800 North Lindbergh Boulevard
St. Louis, Missouri 63167, U.S.A.

Annual Meeting

Information about the annual meeting of Monsanto shareowners can be found on Monsanto.com. A Notice of Internet Availability of Proxy Materials has been sent to shareowners.

Monsanto was incorporated in 2000 as a subsidiary of Pharmacia Corporation and includes the operations, assets, and liabilities that were previously the agricultural business of Pharmacia. With respect to the time period prior to Sept. 1, 2000, references to Monsanto in this annual report also refer to the agricultural business of Pharmacia. Trademarks and service marks owned by Monsanto and its subsidiaries are indicated by special type throughout this publication. All other trademarks are the property of their respective owners. Unless otherwise indicated by the context, references to Roundup and other glyphosate-based herbicides in this report mean herbicides containing the single active ingredient glyphosate; all such references exclude lawn-and-garden products.

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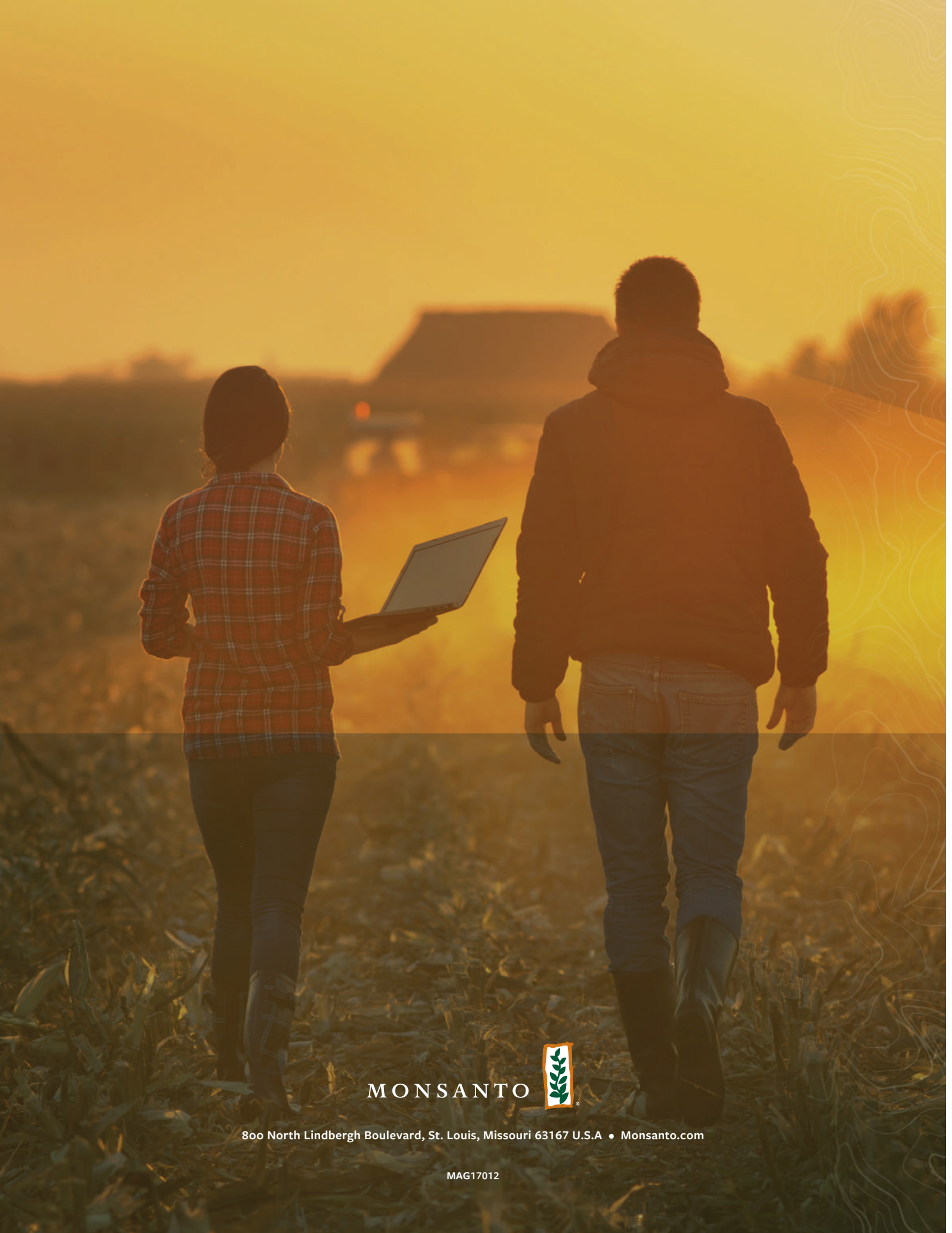
The cover and narrative section of this annual report are printed on paper that contains 100% post-consumer recycled fiber. The financial section is printed on paper that contains 10% post-consumer recycled fiber. By using these papers instead of 100% virgin fibers, we have saved the equivalent of: 138 trees, 62,491 gallons of water, 60 million BTUs of energy, 11,521 lbs of net greenhouse gases, and 4,182 lbs of solid waste.

Source: Environmental impacts estimates were made using the Environmental Paper Network Calculator Version 3.2.1. For more information visit www.papercalculator.org.

MON
LISTED
NYSE®

Monsanto's stock is traded principally on the New York Stock Exchange.
Our symbol is MON.



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